





## COAL-CUTTING MACHINES.

## COAL-CUTTING MACHINES.

AMERICAN COAL, TARIFF, AND TAXATION

at the other end.

Cotton was *supposed* to be King when this disgraceful war began, but Coal will be so as regards the essentials for Peace or War. In other words, in those states depending so much on manufacturing and carrying by steamers for themselves, the slave states, and the world, COAL IS POWER. That it has been for the past twenty years put into New York and Philadelphia at about \$34, or 14s. per ton, and is now \$10 (2l.); and in that country of millions of acres of timber of no value but as fuel, that English Cannel Coal should lately have sold in Boston at \$35 per ton may surely be taken as proof of what I have said, that their Coal deposits are as far inferior to those of Britain as Sir William Armstrong and others, misled by the bombast of Americans, have stated them to be superior. And this price for a ton of coal (double the price of 1 ton of pig-iron here) is not confined to Cannel Coal, or this period of the war, for the standard price of English bituminous (smith's) Coal in Boston has been \$12, exchange at

ROYAL CORNWALL POLYTECHNIC SOCIETY.

ENGLAND'S MINING SCHOOL—No. VII.

it may well join it.

It will not be out of place here to notice that all minerals, and, in fact, all substances have the power of crystallisation. Then, it is necessary to understand what is meant by crystallisation. I give my views generally on the subject. First, I say that crystallisation is performed in every natural substance that grows and increases in bulk. All substances are atoms; they form their own elementary law, move from place to place, and, where they find a substance they have a love, or I may say an affinity, for they will go to it. I call this love crystallisation. I call this love crystallisation, I think, in all animal kingdom. It is the same; but if either be intruded on by other substances during the process of crystallisation it alters the crystal—it is a cross bred, only to be compared with the mule, mule-bird, or an grafted tree. We find that the true crystal of quartz is six-sided; but when intruded on, or is the intruder, the crystal is altered. This law is the same in all substances, and it is the same in all substances. The law is the same passing through the earth in atoms, and still do so. The ones are ever interfering with each other, and wherever they intrude they alter the original crystal, and often its apparent colour. It has been argued that the scoria of known eruptive mountains produce mineral crystals. There is nothing extraordinary in this. Here is a substance, a burning off that is a gas, a vapour, a mineral, and it is a substance, and when it is coming down the atoms are liberated, as less is from a silver test, and there is the atmosphere, or crystallise and remain on the outside. Here some few did remain; but all must be aware that these are not natural crystals—they can only be compared to grapes grown in a hot-house. In no case will either crystallise or grow if 200° too hot, or 20° too cold; but these volcanic productions never produce lode- or faults, or show

Man, in attempting to fathom the natural laws prevailing in the earth, must take them as he finds them, and his action must be based on all the facts that he can observe and introduce as he can, other in the quantities sufficient to alter the crystals. The crystals of the fine sand, called the sea, and in which the crystals have not been altered by their uniting in different proportions. Whether this change by amalgamation took place in the sea or in the stratification afterwards, by one layer decaying and the other growing, or by atoms passing on as gases, will not alter the law as to their possessing life: they live, die, move on, and re-crystallise, under their own natural law. Your readers by this will under-

perature, whether in the earth or on the surface.

To keep my subject in view, and to bear things out, I have to fall back on electricity. I say there is no such thing as a creature that lives in a void space; it is in every nook and corner. It is the origin of fire; wherever friction is there is electricity it produces fire. And when that fire burns out, which it is sure to do when the fuel is exhausted, a new fire is not to be produced without the use of friction. When substances require more friction than others to produce fire; but all fire vanishes when the supply of fuel ceases. We know of no friction in the earth sufficient to produce a fire; but we know the earth produces substances that will catch fire with a candle when they are exposed to the open air, and substances that catch fire with very little friction. On these substances, meeting the atmospheric air when a fermenting state, the lightning itself from a cloud over, I think, would be sufficient to burn the mass; but to my mind there is not a possibility of it first igniting deeper in the earth than where oxygen penetrates. I might ask to what depth would a coal mine burn into the earth if it once caught fire and was left to itself? I should think my friend "John Jones" would not argue that it would burn longer than the coal lasted, and that it would stop at the first coal, if it were really a coal mine.

Returning to gold, and man's search for it, we are first found as an ore; it appears to be over metallic, from its atoms to the large lumps found—that is, there is no middle passage; it appears to have an affinity or a love to join to its own kind, and its atoms, as they pass on, adhere to each other. There are two cases man might assign for its unwillingness, it is known to unite freely about the earth's surface, then oxygen may be the uniting flux, if that gas were one of the origins of the earth's formation, it may be in its own natural elements, or gold may be nothing more than a substance that is very much attracted to electricity, when near the sun's rays. These are subjects for man's meditation, and I know the atoms, in passing through the earth and when near the surface unite and solidify, forming lumps of gold.

NICHOLAS ENGBL.

## MINERAL DEPOSITS IN CARMARTHENSHIRE.

THE TAIRACH MINE.

SIR,—I have read a sort of covetous defence, made by Mr. Hopgood on behalf of Captain Waters, of the Vale of Towy Mine, who, he states, has been unjustly treated. I propose to examine the correspondence, and will show that Mr. Hopgood is wrong in making that assertion, taking the letter from Mr. Hopgood to enquire of this mining captain whether it was a safe investment for his money. Also take the reply. In the first place, this Capt. Waters commences his cargo of valuable information, which sails under false colours. He states that he is a personal friend of the proprietor, and that he has strongly advised him not to work this sett, or expend any more money. This a part of the false cargo. Then he refers to a Capt. Dingle, to a report given by the latter, and I must say the wording of Capt. Waters's letter, in speaking of a brother captain, is not very complimentary. Using his own language, "A person calling himself Capt. Dingle." Has Capt. Waters any doubt about this person not being entitled to the rank of captain in the mining world, or did he do it thinking by using the phrase "calling himself" to throw a doubt before Mr. Hopgood that his report was not a defended one? However, I have not the least doubt that the Capt. Dingle will defend himself, and shall proceed with the letter. Capt. Waters states that he has never been within four miles of this mineral sett, and based his opinion entirely upon the little knowledge he has got of geology, and is confident, also, that it is out of the metalliferous range. After condemning this mineral district by his geological theory, I do trust to see a little of this knowledge of his. Capt. Waters appears before the public in the Journal. I stated that it was a covetous defence. It is shown from Mr. Hopgood's own letter that he should consider Capt. Waters responsible for any loss incurred. There cannot be much speculation in Mr. Hopgood if he expects everything to turn up trumps before the game commences. I cannot agree with Mr. Hopgood about the honest opinion of Captain Waters after he states that he has never seen this mineral sett, and depends only upon his own geological talent for the basis of his opinion. The Journal of Sept. 21, 1861, a report speaks favourably of this very sett he has condemned. Mr. Hopgood appears very anxious that this Capt. Waters has saved his pocket by not entering upon the Tairach Mine. I assert that Capt. Waters has done all he can to injure the county with respect to its mineral properties, but I maintain that the day is not far distant when it will rival the joining county, Cardigan. Such men as Capt. Waters ought to be exposed in every possible way. I consider he has taken money out of his friend, Mr. Hopgood's, pocket by his hasty and biased opinion in condemning a district he knows nothing about. The Welsh mine and labourer will not forget the man that injures them from obtaining their daily sustenance. Before closing I must inform Captain Waters that the letters in the *Welsh Journal*, in answer to J. A. T., are his own statements, and he has not only called upon to open his discussion, but he has made various statements; and a man so talented in geology will surely come forward and defend himself. As for "J. A. T." I shall simply say that—J. A. T.'s A-I-T-R-actor.—August 30.

WELSHMAN No. 2.

### MINERAL WEALTH OF CARMARTHENSHIRE

Sir,—Mr. Hopgood's attempted defence of the man who, on July 13, designates me as his "personal friend," does honour perhaps to the goodness of his heart, but utterly fails as a refutation of the principal charge made against the mining captain by "Veritas"—"That he stated to the London correspondent that the Taibach mineral sett was out of the metalliferous range." From the correspondence put in by Mr. Hopgood in last week's Journal this charge may now be fairly considered as substantiated as forming the opinion of Capt. Waters, Vale of Towy Mine; and, furthermore, I consider such an opinion, coming from a resident mining agent of this locality, and judging from Mr. Hopgood's own impression, as having a most damaging effect on mineral property in which I am interested. In strict justice, therefore, towards myself and the other gentlemen concerned, it alike becomes my privilege, as well as a duty towards a more perfect obliteration of what I hold to be a most erroneous assumption, to state and endeavour to impress on the minds of mining speculators, the shape of a sweeping charge which a district captain, according to the received opinions of several mining men, is a highly mineralised stratum, to enquire of Capt. Waters how he came to entertain the opinion that the Taibach mineral sett is out of the metalliferous range? I cannot be from actual observation, for he acknowledges, in his communication to Mr. Hopgood, that he has not been within four miles of the sett. Then, how did he arrive at such an opinion? In conclusion, I sincerely trust, for his own sake, if not in justice to others, that Capt. Waters will, at all events, endeavour to prove to the mining world, that this, to me, new geological theory of his is founded on a just and accurate knowledge of the facts, and that he is not, as he is, a man of no standing, and that no borne out from a correct comprehension of this highly interesting section, and that no active or subtle agency has been permitted, as an operative cause, to either bias his judgment or warp his mind.

W. G. S. T.

(The mineral sett is Tainbach or Taibach, and not Taibach.)

THE GREAT MOELWYN SLATE COMPANY.

SIR,—I have read the report of the half-yearly general meeting of the Great Moelwyn Slate Company, in the Journal of Aug. 20, and cannot see the propriety or justice of the aspersions cast on the Welsh generally and on quarry agents in particular at that meeting, because the shares of this company are at a discount, and the too sanguine expectations of the directors are not realised. In their report, published March 21, 1863, the directors choose to say—"Sufficient rock was laid bare to make 25 tons of slate per diem in two or three months from the south vein." Will the directors or secretary be good enough to say how the Welsh, or any "interested parties," prevented their not making from occurring? And, if not made, the slate must still be in the vein. Why not take it out? Is it not a fact that this vein has been practically abandoned by the management, who now (sixteen months later) report—"The quarry has not yet been opened, but has not arrived." The Secretary replies—"The quarry was not intended for slate-making but for lime." Why have the "interested parties" or Welshmen had to do with the accident? Mr. Thornthwaite is made to say—"If the writer of a letter in the Journal had any *bona fide* object in view, he would have shown the better way." There must have been some want of a better knowledge of the way when no one could foretell if it would be 40 or 100 yards to roof up; and the engineer admits the costs of this one item to have been 1600*l.* more than anticipated. As a make of 25 tons per day was estimated in 1857, and proved false, it is quite fair for an agent to doubt the accuracy of the secretary's modest estimate to get 40 or 60 tons per week in three months' time.

Mr. Guyon is made to say the quarry agents' conduct was reprehensible in which this quarry has been concerned. The Secretary replies—"There are no two ways of opening a quarry in that district," and adds that "every slate manager has a peculiar mode of his own." So has the secretary, and each, no doubt, conscientiously believes his way the best. Undoubtedly there are *two* ways. The one which leads to success and to dividends; and the other, which entails loss and bitter disappointment. The only question left for the secretary to decide is, which of these two ways is he pursuing for the Great Moelwyn Company? If this company, as the Secretary states, under the management of the secretary, sunk 20,000*l.*, what were the directors and secretary doing that they did not stop proceedings before some great loss arose; and why were they not satisfied with giving this quarry a bad name as they believe it to be, and had not any faith in the quality of the rock, any belief in the report, published in 1863? Many an agent at that time earnestly wished he could discover this company's secret for turning any quantity of rock, of bad or indifferent quality, into 25 tons of good marketable slate per day. It is reported of the meeting this month that the Chairman said the present number quarry had sold 100,000 slates. Did he mean they had contracted to deliver that number when made? The shipments to June 30 contain no slates from Great Moelwyn, and it is not likely the Welsh of the locality would buy 100,000 slates from a quarry they are said to dislike. Unkind rumour says the slates on the roof of the buildings were not all made at Moelwyn. Quarry agents (Welsh or not) are liable to be taken in by the same machine, not by the same man. It is a common sufficient cause, besides a fault in the trap and a slight alteration in the dip of the beds, suggesting to experienced men a dislocation in the rock, productive of a great amount of waste. Be sure of the joints, the

[illegible]











## BRITISH MINES.



below the adit level. The new trial at Snaill continues without change. At Glenroy we are pushing on the clearing and repairing of the old level north, with all possible speed, and as far as can yet be ascertained, are likely to complete the same by the end of next month. We have started a new level, to drive south, on what we suppose to be Snaill lode, a little to the east of Glenroy Mines. The level is driven about 2 fathoms; the lode is large, but so far unproductive, being yet only a few feet below the surface. In the old mine I consider the result of the past month's working has been very satisfactory indeed, and as the new engine, in connection with the crushing-mill, will be ready to work in a few days, we may then reasonably anticipate increased returns of ore. GREAT MOON DOWN.—W. Cross, W. Jenkins, Aug. 27: At Vivian's engine-shaft the men are employed casing, dividing, and bedding the same down to the 67. The lode in the 57, driving west of engine-shaft, is worth 91. per fm.; the lode in the winze sinking below this level is producing saving work for copper ore; the lode in the stopes in the back of said level is worth 91. per fm. The lode in Jenkins' shaft, sinking below the 57, is producing stones of copper ore, but not sufficient to value. The lode in the 57 end, driving east of the latter shaft, is worth 71. per fm. No change in the 57, east or west of cross-cut, on Pendarves' lode, during the past week; this will also apply to Rule's shaft, sinking below the 49. The lode in Sleggan's shaft, sinking below the 62, is in unproductive ground, favourable for sinking. The lode in King's shaft, sinking below the 75, has very promising appearance; worth at present 121. per fm., and looks well for improvement. The lode in the 75 end, driving west of the shaft, is yielding stones of copper ore. No alteration in the winze sinking below the 57, west of King's shaft, since our last. The lode in the 57, driving west of this shaft, is looking very promising, and worth 151. per fm.

GREAT RETAILLACK.—W. H. Reynolds, Aug. 30: The ground continues favourable for driving in the adit east, and we expect to intersect another lode shortly. GREAT SOUTH CHIVERTON.—J. Nancarrow, J. George, August 29: The newly-discovered lode, referred to in the report of last week, runs nearly north and south; we have opened on it 15 fms., and find the average width to be about 2 ft.—composed of a fine strong gossan, and is letting out plenty of water, which indicates most favourably for the production of lead. We are pushing on this and southward as fast as possible. The other end is also being driven on the lode previously discovered, which presents the same promising appearance as when last reported on.

GREAT SOUTH TOLGUS.—J. Daw, Aug. 31: In the 166 fm. level, west of Lyle's shaft, the lode is 1 1/2 ft. wide, disordered and unproductive. In the rise in the back of the 164 fm. level, east of cross-cut, the lode is 1 ft. wide, producing stones of copper ore. In the 164 fm. level, west of cross-cut, the lode is 1 1/2 ft. wide, producing 2 tons of ore per fathom. In the 154 fm. level, west of Lyle's shaft, the lode is 4 ft. wide, worth 121. per fathom for tin. In the winze sinking below the 140 fm. level, the lode is 1 ft. wide, producing 1 ton of ore per fathom. In the 125 fm. level, west of Lyle's shaft, the lode is small and unproductive. In the 100 fm. level, east of Noel's shaft, the lode is 1 1/2 ft. wide, producing 1 ton of ore per fathom, and is promising for improvement. The tin stopes are still looking very well.

GREAT WHEAL BADDERN.—J. Jenkin, Aug. 29: Hill Brothers Shaft: In the tin stopes east of Buckley's shaft, in bottom of the 25, the lode is 3 ft. wide, producing fair average work for the stamps. In the stopes near the shaft in bottom of the 25 the lode is 2 ft. wide, producing tin. Surface operations are progressing satisfactorily.

GREAT WHEAL BUSY.—J. Edwards, J. Peterick, J. Teddlack, C. Bawden, Aug. 27: The lode in Harvey's engine-shaft, sinking below the 140, is still disordered by the air course. We have driven through the cross-course in the 140, east of the engine-shaft; as yet there is no improvement in the lode. There is nothing new in the 140 or the 130, west of Fielding's shaft. We hope to get Offord's shaft to the 140 in a month from this time. The stopes in the back and bottom of the 130, east of Offord's shaft, are worth respectively 201. and 401. per fathom for tin and copper ore. The lode in the 130, east of said shaft, is yielding a little ore, but not sufficient to value. The lode in Mathew's shaft and 110 east are producing good stones of copper ore and a little tin. The lode in the 90, east of said shaft, is at present disordered by the air. The lode in the 80, driving east of ditto, is 3 ft. wide—unproductive. The lode in the 70 end, in the back of Mathew's shaft, is 1 ft. wide, producing 101. and 141. per fathom for tin and copper ore. The ground in the 30 cross-cut, south of Walker's shaft, is favourable for driving. We hope to finish the collar of Walker's shaft by Tuesday.

GREAT WHEAL FORTUNE.—J. Vivian, N. Miners, T. George, Sept. 1: Carmel engine-shaft is sunk 14 ft. below the 114; lode 2 ft. wide, very much improved in appearance, producing a little tin. The shaftmen are now engaged in cutting clister-plat, which, together with fixing lift, and making everything complete for sinking, will take about ten days, when the sinking will be resumed.—Old Mine: The 95, driving east of cross-cut, on Blue Burrow lode, is worth 121. per fm.

GRYLLS WHEAL FLORENCE.—Edmund Rogers, August 30: The lode in the engine-shaft is maintaining its size and value, being 4 feet wide, worth 301. per fathom for tin, and producing occasional stones of copper ore. In cross-cutting north and south, in the adit and 19 fathom levels, there is no alteration; the ground is favourable for driving. At surface we are excavating ground for fixing flat-rods from the engine to the shaft.

GWYDYR PARK CONSOLS.—W. Smyth, Aug. 31: No change to notice in Gwyn Liffon deep adit since last reported; re-set to six men, for the month, at 121. per fm. No lode taken down in Gwydyr stopes since last week; set to stone to four men, at 60s. per fathom, and to drive the middle level, to two men, at 61. 10s. per fm., sent for the month; these are one pair, as their staff will mix together. The dressing is again at a stand for want of water to crush.

HALLENBRIDGE.—J. Edwards, E. Richards, August 27: The old engine-shaft is now cleared to the 40, which is the bottom, and dry at this point; there is a cross-cut driven south 4 fathoms on the cross-course, but we cannot yet ascertain whether the lode is intersected or not in consequence of foul air. We find the old workers have taken away the lode to a great extent in the upper levels, which we consider a good indication in depth, as the shoots of ore in Wheal Rose deep levels are dipping towards this point. There is also a cross-cut driven north from said shaft at the 40, on the cross-course, to cut the Wheal Rose lode, which is underlying south and towards the shaft, but in consequence of foul air we are obliged to suspend the clearing for the present. We propose clearing up a shaft south of the above, for the purpose of a footway and for ventilation, which shaft is as deep as the 36; no time will be lost in accomplishing the same, and when done we shall commence sinking the old engine-shaft below the 40; judging from the lode taken away in the upper levels, we consider this to be a good speculation. The engine-shaft is cleared 2 1/2 fathoms below the 40, which is down to the water; the shaftmen are engaged cutting ground for clister-plat to receive the pit-work at the 40. There is nothing new to notice in Stone's or the eastern shaft for the past week. At Hawden's shaft, on Reed's lode, sinking below the 33, the lode is 19 in. wide, producing stones of copper ore. The lode in the winze sinking below the 33, east of Hawden's shaft, on Reed's lode, is 1 ft. wide, producing muddle and pech, with good stones of copper ore, a little improved in the past week. We have cleared the 40 west of Stone's shaft, on south lode, 30 fathoms, and hope to let some tribute pitches here in the ensuing week. We have six pitches working on the north lode, in bottom of the 40, west of Stone's shaft, which are worth on an average from 121. to 131. per fathom for copper ore; two pitches in bottom of the 36, on the same lode, east of Stone's shaft, worth full 101. per fathom. All other pitches throughout the mine are yielding their usual quantity of copper ore. We still consider the mine one of great promise; they have five productive lodes passing through the set—North Wheal Rose, Oate's, Red's, and East Wheal Rose, which are all in the bottom, and clear to the surface, and have reason to believe this property will be the first-class. The canter copper lode has not yet been intersected at the junction of either of the lodes below the deep adit, and looking at the junction at the deeper levels we may reasonably expect good results. All the surface operations are progressing satisfactorily.

HAVAN.—George Jones, Aug. 30: The sinking of Carriston shaft below the 10 is progressing satisfactorily, and quite as valuable for lead ore as when last reported. The lode in the 10 east is of a very kindly appearance, but not quite so productive as heretofore, worth from 12 to 15 cwt. of lead ore per fm. There is no change in the stopes in the back of the 10. No. 3 stopes, in the back of Seta's adit, has improved, worth at present 1 1/2 ton of lead ore per fathom. We are sampling to-day 50 tons of lead ore, for sale on September 8.

HAWKMOOR.—J. Richards, Aug. 30: In the adit level, driving west on No. 3 lode, we have intersected the large cross-course, into which we have driven about 4 ft. I expect we shall find it several fathoms wide; immediately on getting through it cross-cuts will be commenced for the intersection of the lodes on the western side thereof, which I hope to find more concentrated and productive. In the back of this level the lode is 2 ft. wide, composed of quartz, capel, muddle, pech, and good work for tin ore.

KELLY BRAY.—O. Rowe, Aug. 30: Saturday last being our monthly setting-day, the following table has been taken place in the adit level, by four men, sent 4 fms., at 41. 5s. per fm. The lode at this point is improved in character, and is becoming more porous, from which a considerable increase of water is issuing. The 60 cross-cut north to drive by six men, sent 2 fms., at 91. per fathom; the ground at this point is a little stiffer for progress, in consequence of some hard floors of spar coming in contact with the end. The 40 east to drive by six men, sent 2 fms., at 41. per fm. The stopes in bottom of the 25 east, from western shaft, by four men, sent the month, at 21. 10s. per fm.; the lode in this stopes is worth 61. per fm. All the wheeling, tramming, filling, and landing in the mine for one month, at 101.

LADY BERTHA.—Capt. Harpur and Metheell, Sept. 1: Since our last report no very material change has taken place in the appearance of the lode in its part of the mine. In the new eastern shaft, which we are now sinking below the bottom of the 41, the ground is moderately favourable for exploring. In the end driving north-east of the 41 the lode is about 2 feet wide, composed of fluor-spar, muddle, and spots of ore. The stopes in the bottom of the 41 west are without change, the lode being about 3 ft. wide, composed of quartz, muddle, and ore; worth of the latter 5 tons, or 201. per fm. In the 30 east the ground continues pretty favourable for driving, the lode being small, consisting of flocon, mixed with muddle and ore. In the cross-cut driving north, in the 10 east, the ground is of a very congenial appearance, traversed by numerous branches of muddle, carrying a little ore. In the tribute department the pitches are producing about the same as for some time past.

LAVIET.—J. Tregay, Aug. 27: The lode at Outon's engine-shaft is improving in appearance, and producing very good stones of tin, but the ground is still rather hard for sinking, and as we are now down 12 1/2 fathoms, it is necessary to cut a pit at that level, which we have set at 251.; as soon as this pit is cut we shall be enabled to drive east and west on the course of the lode, from which drive we expect to raise paying tin-stuff.—Petrie's Engine-shaft: The main part of the lode is standing a little north of the shaft; the part we are carrying produces good stones of tin. We are now down 13 1/2 fms., and it is necessary to cut a pit at this level, which has been set at 121. 10s.; as soon as this is accomplished we shall be enabled to drive east on the course of the lode, and sink the shaft at the same time; this shaft has been sunk in the month 2 fms. 3 ft.

LEEDS AND ST. AUBYN.—J. Curtis, Aug. 30: Since our last working we have completed the flat-rods shaft from the 20 to the 30, and opened on the lode in the 30 nearly 30 fms., the backs of which are now working at 7s. in 11. The 20 we have driven through a lode about 60 fms.; the backs working at from 6s. 8d. to 10s. in 11. The 10 we have driven about 75 fms.; the backs working at from 4s. to 9s. in 11.—Standard Lode: We have opened in the 10 and 20 fm. levels about 50 fms.; the backs working at 10s. in 11.—Paul's Lode: We have sunk the shaft from the adit to the 10, erected and laid down 20 fms. of flat-rods, and driven a cross-cut towards the lode 10 feet, in which we have intersected several branches. Our expenses during the last six months have increased by having two sump-shafts sinking at the same time. We shall now begin to reap the benefit of them, and our two last sales of tin will speak for themselves. We have 18 men on tutwork and 30 on tribute, at an average of 9s. in 11.

LONG RAKE.—F. Evans, Aug. 31: There is a very good branch of lead ore in the engine-shaft, sinking below the 80, and taking the whole shaft it will produce 2 tons per fathom. The 80 east is driving in an improving lode, and producing good saving stuff for lead. The 70 east yields good lumps of ore, but not regular. The 60 east is spare for driving, worth 121. per fm. The pitches are turning out large quantities of ore, and we shall be ready for the next sampling 25 tons of lead ore.

MAUDLIN.—J. Tregay, Aug. 27: Old Mine: The lode in the 70 west end produces muddle, with occasional stones of ore; ground driven 2 fms. 0 ft. 6 in.; set to drive by six men, at 101. per fm., 2 ft. extent. At Combe the ground is rather harder for driving; set to drive by six men, at 81. per fm., for 6 fathoms extent; ground driven in 27 fms. 3 ft. 6 in.

MOLLAND.—T. Bennetts, Aug. 31: We have had some rain here during the past week, but not sufficient to increase our condensing water before last night. We have now a sufficient supply of water to work to the engine, and should it not fall off again I hope we shall get the water out of our bottom level by the end of this week. The stopes in the back of the 42 east are producing 1 1/2 ton of ore per fathom; set to four men,

2 fms., at 31. 10s. per fathom. We are now making good progress in clearing and repairing the 32 east, and I hope by the end of another week we shall be in a position to commence working on ground here either in sinking or stoping.

MINERA UNION.—Wm. T. Harris, Sept. 1: Brainer's Shaft: In the 80 north, on the footwall side of the lode, we meet with tumbled limestone; we have commenced a cross-cut to drive east into settled ground; in doing so we get occasionally stones of lead. The main level, driven on the eastern portion of the lode, is without alteration, producing a little lead. The levels from the top of the rise produce good lead, and are very promising. The pitch in the bottom of this level, by No. 1 winze, is worth 2 tons of lead per fathom. The pitch in the back of this level, by No. 2 winze, is worth 10 cwt. of lead per fm. The pitch south of winze is worth 5 cwt. of lead per fathom.—Williams' Shaft: The pitches in this portion of the mine are as last reported.

NANT-Y-LAGO.—J. F. Roach, Sept. 1: In the 30, west of the engine-shaft, the lode is 4 ft. wide, composed of carbonate of lime, slate, and a little blende and lead ore, but not enough to save; we are daily expecting a change for the better as the level is extended. In the same level east the lode is 3 ft. wide, exceedingly wet, and very spare for driving; a good mixture of ore is being broken from the forebrest, but the lode appears to be richer in the back of the level. The lode in the 20 west is 3 feet wide, and has considerably improved within the last day or two; the forebrest is now worth from 161. to 121. per fathom for ore and blende, with prospects of a greater improvement. I believe this run of ore to be a continuation of the same that we are now stoping in the bottom of the 10, as it is precisely the same in character, and should this be the case, it speaks well for the whole ground standing above. In the winze sinking under the 20 east no lode has yet been taken down, and from appearances I believe it is good. The stopes in the bottom of the 10 is worth 81. per fathom for ore and blende. We shall send off next week a parcel of lead ore, from 11 to 12 tons. The prospects throughout are improving.

NEW CHIVERTON.—James Juleff, Aug. 31: There is a very kindly-looking lode in the 20 east. The stopes are still looking pretty well. We are making better progress in clearing the 20 west, and we hope to see this and north lode in the 20 east, sinking in a good ground, and the making good progress.

NEW CROW HILL.—W. Trelease, Aug. 30: We are still frozen up here, and all the hands we have now employed are at Louisa, and I may add, we are getting on there very well with clearing up the engine-shaft, and I think we shall be able to get down deep enough with the windlass to enable us to drop away the pumps, but to do this I have been obliged to put on four men in a core, and they relieve in the pit, as the water for hand-tackle is very powerful, being over 500 barrels in eight hours, still I think we shall accomplish our object.

NEW EAST RUSSELL.—J. Gifford, Aug. 30: In the deep adit west their is so bad for want of water for the water-falls that two men are as many as can work there at present. The south part of the lode, which we are now driving on, is 2 ft. wide, yielding stones of yellow copper ore, but not enough to value. The new engine-shaft is down 6 fathoms, collared up, and made secure 12 feet long by 6 feet wide within timber; the ground is favourable for sinking.

NEW LAXEY.—R. Rowe, Aug. 30: I have just returned from this mine. I find the lode in the shaft, sinking below the 60, scarcely as good for lead as last reported, now worth about 1 1/2 ton per fm.; the lode is 3 1/2 ft. wide in the north end, and about 2 1/2 ft. in the south end of the shaft; it seems to me the dip of the ore ground in the bottom of the mine is now from south to north. In the 20 end, driving south, the lode is again improving, being now 3 ft. wide, 2 ft. of which is a very promising looking spar, well mixed in lead, and worth 1 1/2 ton per fathom; from present appearances this end is likely to further improve.

NEW ROSEWARNE.—E. George, Wm. Mitchell, Aug. 31: The lode in Bickford's shaft is 6 ft. wide, worth 151. per fm. The lode in the 74, west of Bickford's shaft, is worth 351. per fm. The stopes in the back of the 74 west is worth 151. per fm. The lode in the 67 west is 3 ft. wide, producing good stones of tin and copper ore. The stopes in the 67 west is worth 151. per fm. The stopes in the back of the same level, east of Bickford's shaft, is worth 61. per fm. The lode in the 55 east is 3 ft. wide, producing a little tin, but not regular. The stopes in the back of the 55 east and west of winze, are each worth 201. per fm. The lode in 46, west of Bickford's, is small, producing stones of copper ore.

NEW TRELEIGH.—S. Mitchell, Aug. 26: Our tutwork setting took place to-day, and the following is the result:—The 90 to drive west of Carr's engine-shaft by four men, at 91. per fm.; the lode in this end is become more settled, and producing good stones of ore. The 80 to drive west of the same shaft by four men, at 91. 10s. per fm., the level to be carried 7 ft. high by 3 ft. 6 in. wide for a tram-road; the lode in the end will turn out 2 tons of ore per fm. The winze to sink below this level by six men, at 101. per fm.; the lode at the present time will yield fully 3 tons of ore per fm. A winze to sink below the 70 about the same distance from the shaft as the one sinking in the 80; the lode here is large, with good stones of copper ore in it, a very promising lode—set to four men, at 71. 10s. per fm. In consequence of the lode being so plentiful in the 70 end, and the cross-course, renders the end troublesome and spare for driving; this part will be drained when a cross-course is intersected in the 80, which will greatly facilitate our operations there, and under the present circumstances we thought it advisable to suspend the driving of this end for a short time, and employ the men to sink the winze before referred to in this level. We have four men employed clearing the adit, and making preparations for sinking the new western shaft.—Aug. 31: There is no alteration in the mine to notice since the above date. Good Fortune engine is turned idle to-day.

NEW WHEAL MARTHA.—H. Rickard, G. Rickard, Sept. 1: We have been driving the 20 east, and the lode in the 20 east is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have a larger space for the water to discharge itself, and to facilitate our progress in cutting through the lode. The lode in the 74 west is producing good stones of copper ore, but not enough to value, at the same time promises an improvement; in the same level east the lode is poor at present. The 64 west is yielding copper ore, worth 101. per fathom. The lode in the stopes below the 62, both east and west from No. 1 winze, is as last reported, worth 501. per fathom. We expect to communicate the winze sinking below the 62 daily, as we can hear each other speak very plainly. The lode in the 40 west is much the same as last week, producing good stones of copper ore, the ore-bearing part still being to the south; the ground is easy for progress. The lode in the 20 west is still a little improved in appearance, and the part already seen; this is done in order to have



tied to the east of the cross-course, and is worth for tin 97 per fm. In the 44, driving west of shaft, the lode is worth for tin 127 per fm. In the 44, driving east of shaft, the lode is worth for tin 97 per fm. The men in the 44, west of shaft, are still sinking the winze, which will be holed in two months or less; it was at first little work of shaft, but now the cross-cut has been commenced, and has covered the lode a little farther north than that direction we are now pursuing it. The winze sinking below this level is worth for tin 97 per fm., and in the rise for new shaft, in back of ditto, the lode is worth for tin 77 per fm. The lode in the 24, driving west of cross-out, is much the same as what last reported. The lode at the new shaft, sinking below the 110 fms, is worth for tin 97 per ftbm. The ground in the 82 cross-cut is still good for driving, and the men making good progress.

**WHEEL KITTIE** (Lelant).—*W. Williams, Sept. 1:* Gowan Lode : Rogers's shaft is sunk 10 fms. 4 ft. below the 90fm. level ; at present the lode is small . The lode in the 60 west end is worth 35 per fatbm. The 50 end east is opening tribute ground . In the 80 end east the lode is worth 35 per fatbm. The 40 end east is working below the 80 opening tribute ground . The lode in the 80 end west is 2 ft. wide , at present not yielding much tin . In the 70 end east and west the lode is at present small . The stope in the back of the 70 fm. level is worth 30T. per fatbm. The lode in the 30 end east is worth 35 per fatbm.—North Ruscoe Lode : The rise in the back of the 140 fm. level is penning tribute ground ; also the winze sinking below the 110 fm. level . There is no chance to notice in any other part of the mine since last reported on .

**WHEAL MARGERY**.—*R. James, W. Rogers, Sept. 1 :* We have not any change at the Welinley's engine-shaft or in the ends near it to report this week . At the Amerline sink the lode sinks below the 130 ftm. level . The lode is worth 20T. per fm. length of ratf. In the 132 west the lode is producing stones of ore . The adit in back is worth 52T. per fm. In the 132 east the lode is worth 8T. per fm. No. 1 stope, in back, is worth 12T. per fm. No. 2 ditto, 9T. per fatbm. In the 122 east the lode is producing stones of copper ore . No. 1 stope, in back, is worth 6T. per fm.; No. 2 ditto, 7T. In the 122 west the lode is yielding stones of ore, but not to value . No. 1 stope, in the back, is worth 5T. per fatbm.; No. 2 ditto, 7T.; No. 3 ditto, 8T.; No. 4 ditto, 8T.; No. 5 ditto, 6T. In the 110 east the lode is worth 8T. per fm. The stope in back is worth 8T. per fm. In the 110 west the lode is poor . The stope in back is worth 10T. per fm. In the 100 west the lode is worth 8T. per fm. The stope in back is worth 7T. per fm. The stope in back of the 80 end east is worth 10T. per fatbm.—Other changes none .

**WHEAL MARY HUTCHENS**.—*W. Edwards, Aug. 31 :* The deep addt cross-cut going north is now extended 11 fms. from N. 4 shaft; the ground is still hard and spare for driving . I hope, however, we shall soon get into the soft elvan course, which is lying south of the great copper lode . We have six hands employed in this driving, and re pushing on with all speed; the water issuing from the end is strongly impregnated with copper . We have passed through several branches of spar, munda, and spots of copper . I still feel sanguine of soon meeting with the principal lode, from which I anticipate great results .

**WHEAL NOBLE**.—*J. Andrews, Aug. 27 :* Carter's shafmen have been engaged in the 40 end west about 4 weeks past, at the 45 ftm. level, which they have completed, and the shaft in full course of sinking below that level . There is no change in the 45 end east since last report . We continue to make good progress in driving the 35 crosscut north . In the 35 cross-cut south the ground is more favourable for driving . The tribute pitches are looking well .

**WHEAL PROSPER**.—*S. Mitchell, Aug. 31 :* We have reached water in the shaft, sinking on Treवास lode, and obliged to suspend for the present . As soon as the lode is intersected in the 40, I have no doubt it will be drained, and enable us to resume the shaft; meanwhile we will drive and stopes at the present depth, and if the lode continues as productive as it has been in the shaft, it can be taken away at a profit .

Their operations being suspended by want of water, the following anticipations were made for our fortnight setting for September month, together with the prospecta on the various points of operations :—The 60 end east is now extended 21 fms. from shaft : lode 2 feet wide, giving occasional stones of tin; we have deemed it advisable to suspend this driving for a short time, and have put the men to rise again so the winze sinking from the level above, stented 4 fms., or hole through, at 6T. 10s. per fm.; this work will be pushed on with all speed so as to ventilate these levels, and will tend greatly to facilitate the removal of the tinstuff . In this level west we have communicated No. 2 rise with the winze sunk to the 46 . This part of the mine being now thoroughly ventilated, we have set the end to drive by two men and two boys, stented 2 fms., at 5T. per fm.; the lode is met about 3 fms. down, producing a little tin, and I have no doubts we shall soon find an improvement after getting clear from the influence of the cross-course . The winze sinking below the intermediate level, east of shaft, is down 14 ft.: lode 4 ft. wide, worth 8T. per fm. for tin; set to six men, stented 4 fms., or hole, at 6T. 10s. per fatbm. The 46 end to drive west, by two men and two boys, stented 2 fms., at 6T. 8s. per fm.; lode 2 ft. wide, worth about 7T. per fm., having improved within the last 3 ft. driving; in this end east we have commenced to cross-cut north by two men and two boys, stent 4 fms., or cut the lode, at 3T. 10s. per fatbm. No. 1 stope, in bottom of the 46 west, to four men, stented 4 fms., at 3T. 10s. per fm.; lode ¾ ft. wide, worth 4T. 10s. per fm. for tin . No. 2 stope, in bottom of the 46 east, to four men, stented 4 fathoms, at 1T. 10s. per fatbm.; lode ¾ ft. wide, worth 5T. per fatbm. No. 1 stope, in east of the 46 east, to eight men, stented 10 fms., at 1T. 15s. per fm.; lode 3 ft. wide, worth 10T. per fm. No. 2 stope, in back of the 46 east, to eight men, stented 20 fms., at 1T. 10s. per fatbm.; lode ¼ ft. wide, worth 7T. per fm. Our operations throughout continue to progress satisfactorily . We have commenced calcining for our next parcel of tin .

**WHEAL SPARROW**.—*W. Tregay, E. Chegwain, Aug. 26 :* The men are cutting down engine-shaft : still continue to make good progress; now down 7½ fms. below the 20 . The lode in the 20 north-west end is ⅓ ft. wide, producing good stones of copper ore . The ground in the 20 north cross-cut is favourable for driving, and fair progress being made . They have frequently employed getting in the engine, the heavy parts of the engine being fixed in their place .

**WHEAL UNY CONSOLS**.—*C. H. Reynolds, Aug. 30 :* The winze is now down 22 fms. below the 60, and the lode contains more grey and less black copper ore than last reported . The lode in the 60 west is of a promising character, and for about 2 ft. high contains some good black copper ore . The western shaft we have set to sink below the 40, at 6T. per fm., and shall push this on as fast as possible both to ventilate the 60 and to draw the stuff through . We have not cut any lode in the cross-cut at the 40 .

**WHEAL UNY**.—*S. Coade, M. Rogers, Aug. 27 :* The engine-shaft is sunk 5 fathoms below the 110, and is nearly on the north part of the lode; sinking by six men and three girls, at 2T. per fm. In the 110, west of engine-shaft, is worth 12T. per fm.; driving by six men, at 8T. 10s. per fm. The 110, east of engine-shaft, is worth 14T. per fatbm.; driving by four men, at 18T. per fm. The 100, east of engine-shaft, is worth 20T. per fm.; rising a winze to communicate with the 90 by six men, at 25T. per fm. The incline-shaft is sunk 7½ fms. below the 100, through a lode worth 20T. per fm.; sinking by six men, at 15T. per fm. The 80, west of incline-shaft, is driven by two men, at 4T. per fm.; the lode at present is poor for tin. The 80, east of Gooding's shaft, is driven by four men, at 8T. per fm., worth 5T. per fm. The 60, east of Gooding's shaft, is driven by four men, at 5T. per fm., worth 7T. per fm.—Copper Lode: The new engine-shaftmen are set to drive a cross-cut north, in the 68 by four men, at 7T. per fm. The 68, east of engine-shaft, is driven by four men, at 8T. per fm. The lode is small at present, producing good stones of copper ore . The 68, west of N. 3 shaft, is driven by four men, at 5T. per fm.; the lode is about 1 ft. wide, composed of quartz, munda, and copper ore, of a promising character . The No. 3 shaft is sunk 6 fms. below the 68; the lode is 1 ft. wide, producing stones of ore; sinking by four men, at 8T. per fatbm. The cross-cut south in the 58, east of N. 3 shaft, is driven by six men, at 7T. per fm.

**WORVAS DOWNS**.—*H. Harry, Aug. 31 :* Bamfield's shafmen have finished cutting plat in the 20, and are now engaged sinking below the level for bearers and clsters . At Hirat's shaft the ground continues favourable for sinking, and good progress is being made . It appears that the northern vein of the 20 is very promising, and yielding some fine pieces of tin, saving wood with it . Report is received from the 20, where the lode is divided by a horse of granite, and at present not of much value . At Dunn's shaft we are putting up a rise in the back of the adit, which is producing some very rich tinstuff, and opening paying ground . All other work is progressing well, and we are getting a parcel of tin ready for the market as fast as possible .

**YARNER**.—*R. Barkell, Aug. 31 :* The new shaft is being sunk with all possible speed; the ground is favourable, and will stand without timber . The 40 east, on north lode, is not looking so well, now worth about 2 tons per fm. I believe the change is only temporary . The 30 east, on south lode, is without change; lode yielding savings of tin, at 3T. per foot of rock . The 20 west of the 30 is better off than the 30, and a spile, but, as the lode here is given to those changes, I believe it will become of its former value—3 tons per fm. The stope west of the last-named one is worth 3 tons per fatbm., and the winze sinking in bottom of the 30, west of shaft, is cutting out good stopping ground . The stope in the 50 will produce 2 tons per fm. The adit towards the new shaft is progressing favourably . The rain has given us more surface water, and we are making the best use of it .



## MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

**GOLD IN WALES—CASTELL CARN DOCHAN.**—The amount of gold returned this week is 6 ozs. 5 dwts., from 21 cwts. of quartz, making a total of 72 ozs. 12 dwts. 12 grs. to August 30.

**WELSH GOLD MINING COMPANY.**—This company received during the past month—137 ozs. 6 dwts. 14 grs. of gold, from 109 tons 16 cwts. 2 grs. of ore, averaging 1½ ounce per ton.

**GREAT WHEAL VOR.**—The prospects at Wheal Metal Mine continue to be remarkably good. They have a good lode in Ivey's shaft, also in the 163, west of Metal. There is an improvement in the 184, west Metal shaft.

**AT FRANK MILLS MINE** they sampled 90 tons of No. 2 ore on Thursday. The mine is looking quite as well as at any former period. Capt. Nicholls and Cornish reported upon the operations at the mine. The quantity of No. 2 ore sampled is greater than at the corresponding period of last quarter, but the quantity of No. 1 dressed has been less, owing to inability to get men to raise that quality from the 100 fm. level. Should they be able to get men soon, they will get their No. 1 parcel ready by the usual time for the next sampling.

**CALVADNACK.**—The prospects of this mine increase, as an improvement in the principal lode has taken place the last few weeks. No. of shares, or parts, 912.

**IN GRAMBLER ST. AUBYN (486 shares only)** a great change is taking place in the lode and granite in the engine-shaft, which is down to the 84 fm. level, giving great expectations for good improvement in a few fathoms more driving.

**WEST WHEAL FRANCES** shares, since their being noticed in the Journal, are moving up quietly in price. It is remarkable that these shares (only 512 in number) are at a figure to make the mine, which is between East Grenville, South Frances, and West Basset, selling for (say) 17,000, though the lodes are valued at 130,000, whilst the former (East Grenville) is at 43,000, and the latter at 60,000, the lodes, in the aggregate, of East Grenville being about half the value of West Frances. As East Grenville Mine cannot be considered to be rated at an extravagant sum, there must be a large margin for a rise in West Frances, owing to the want of public interest at present taken in it.

**PENNANT SLATE COMPANY.**—At a directors' meeting, held at the offices in Shrewsbury, it was decided that the few remaining shares should be sold at 11. per share premium. This looks promising for the company so lately formed; but we understand the sale is likely to prove of first-class quality.

**NEW WHEAL VOR AND METAL UNITED.**—This sett, which adjoins East Wheal Fortune on the east, and is a continuation of the same lodes and branches, has recently been set to work under the most favourable auspices, and with the fairest prospects of success. In the adit level, which is from 18 to 20 fathoms deep, several large, well defined lodes have been discovered, one of which is 8 feet wide, yielding tin of rich quality. This lode, from its appearance and underlie, is evidently the great Carmarthen lode, which traverses the whole length of both this sett and East Wheal Fortune, and forms a junction with other lodes underlying towards it. The sett is extensive, and being situated in a beautiful light hills, near the junction of granite, and traversed by lodes that have given immense riches in the adjoining western mines, there seems every probability that its development will be attended with success. The recent extraordinary discoveries of tin at Great Wheal Vor and Metal, which are, perhaps, unparalleled in the history of Cornwall, have given an impetus to mining in this district, and more particularly to the ground east of the Trevanno Valley, to which attention is now chiefly directed, and which, it is the prevailing opinion amongst old tinners, is a field of immense mineral wealth.

**CURTIS.**—The Curtis lode has been cut in the 30 fm. level cross-cut north. Little can be done and nothing said on this for a few days, on account of the immense quantity of water in the end. The mine sales will shortly report for itself.

**ROARING WATER.**—The report of Mr. George Henwood upon this property, in this day's Journal, is a most satisfactory testimony as to the value and prospects of these mines; we have long entertained a strong opinion that the south-western part of the county of Cornwall would turn out a fine field for mining enterprise. Such appears now to be the case, and no one has a greater right to speak on these matters than Mr. George Henwood; he visited this district some years since, and his report is a most valuable one. He found the more productive lodes, and that the vulgar error as to the rich ore not holding down in depth has been completely exploded by the practical workings of these rich mines, which have now obtained a very important depth, Ballycumisk being 120 to 130 fms. The Roaring Water Mine is opening up with great promise, which is a continuation of the same lodes, with much easier ground, and possessing greater advantages. At Gilmartin's shaft, the new lode is just coming in, which promises to be one of considerable value. At Grady's shaft and west shaft returns are making of grey ore, richly impregnated with silver. All the mining men in this district are looking with great interest to the development of the Roaring Water Mine.

**ROSEWARNE UNITED.**—An important discovery has taken place here.

**EAST WHEAL FORTUNE (Sithney).**—In a shaft sinking below the old men's workings, in the south part of the sett, a very fine lode has recently been discovered, about 2 feet wide, composed of prisms, quartz, and branches of tin of the richest quality. The shaft is down about 9 fathoms from surface, and the lode is improving in depth, and from its present underlie will be intersected in a cross-cut from the adit level, nearly 30 fms. deep. In the course of a few fathoms driving, should it be there found as rich as it is in the shaft, a great many fathoms of rich tin ground will be opened up. The adit level, which is many fathoms west of the above shaft, is opening east on another lode of a very promising nature, and on being extended a few fathoms further east, a cross-cut will be driven north and south to intersect the other parallel lodes, which, from the great extent of old surface workings, must have yielded large quantities of tin. There are few pieces of unexplored mineral ground in this celebrated district—I may say in the county—that present greater attractions or more promising indications of success, if properly developed, than this, and its value is daily becoming more apparent. From its network of lodes and branches, all producing tin of the richest quality, numerous intersections, and the congenial tin-producing stratum in which they are embedded, there seems every reasonable ground for anticipating here a tin mine of great value and extent.

**WHEAL CURTIS.**—The lode in Square's shaft still continues to hold good, worth about 81. per fathom, cost of sinking 81. 10s. per fathom. This will lay open profitable ground as we extend our levels. The 10 fm. level east and west is laying open tribute ground. We have just cut into the lode in the 30 fm. level cross-cut north. It is letting down a large quantity of water, so that we can say nothing respecting it this week, excepting that the water is gone down 9 fms. below the adit in the old workings.

**THE NEW MINING DISTRICT ROUND OKEHAMPTON.**—I was glad to notice that, simultaneously with my letter to you last week, on the new mining district about Okehampton, you also published one from another correspondent, announcing the opening of one more mining undertaking close to the town, showing that public attention is rapidly being turned to the development of this very promising, but hitherto neglected, district. Since I wrote to you last week, the accounts from the Devon Copper Mine are most encouraging. The agent writes that in the adit level a cross-course has been intersected, about 6 feet wide, composed of capel, spar, and mundle; and as the lode (or the portion of it being carried) produced some very good copper ore, with plenty of gossan, up to within a few feet of this cross-course, with most favourable indications, he considers there can be little doubt of meeting with some good ore ground at this point in deeper levels. The lode in the shaft also continues to improve, and the ground is most favourable for rapid and cheap sinking. The meeting takes place on Tuesday next.—"EASTWARD, HO!"

**CLEER'S HILL.**—During the past two months this mine has been inspected and favourably reported on by Captains Symons, Rickard, Puckey, Parkyn, Billing, Buse, Hooper, Yelland, &c.

We observe that the **CORDE MAWR POOL MINING COMPANY (Limited)** is to be wound-up voluntarily. The mines and materials are to be sold by the liquidators; this is a very unexpected result, the company having raised and sold, or paid in, some to an amount exceeding 14,000. The failure of the water supply, after the expenditure of nearly 8000, in the various attempts to secure it in a body sufficient for the sinking operations, and the disinclination of the shareholders to raise capital for the application of steam-power, are the causes of this abandonment. We cannot doubt but that this valuable property will be purchased, and ample capital provided, by a new company. There are six good lodes ascertained to increase in value in the descent, and if steam-power had been applied at the commencement of the operations, no doubt dividends would have been long since available. It is another instance of the many upon record where the original shareholders have sustained a very valuable property from disinclination or inability to subscribe sufficient working capital. In all probability strangers will reap the benefit of the costly struggle which has closed the career of the old company.

**CRANE.**—The improvements which have taken place in this mine are of the greatest importance, taking into account the fact that the lodes of South Roskar and Old Wheal Gerry, or Chance, Seton and Wheal Seton, the Dolcoath caunter, and several other large lodes, with three of the finest silver courses, pass through the sett. The most important of these improvements is the meeting with the lode in the shaft at 88 fms. under adit, which has not been seen in the shaft under the 60 fm. level. The copper taken from the present sett is quite characteristic of the district, being worth about 11. per ton. The mundle is very strong, and the surrounding country changed for the better. Water is bursting up from the bottom to the height of from 2 to 4 ft., draining the 60 and 80 fm. levels, the importance of which cannot be over-estimated, proving as it does that there is a large open lode to the west of and beneath us. The next improvement is in the 60, passing out of the elvan, where there is a leader of ore and jack, 6 in. wide, and a leader of mundle, 1 ft. wide, nearly solid. This is a most important point, and great results are expected when the lode is clear of the elvan. It has been further ascertained, by the dialling of Capt. Stephen Davy, that the great point for which the working of this mine in August, 1860, was undertaken—the proving of the Brigant or Wheal Seton lodes in depth—has not been attained, the cross-cut from the Crane lode not having been extended far enough north to cut the Brigant lode, that which was supposed to be the lode being only a branch. This cross-cut level has been resumed by six men, and it is expected that this lode will be intersected in a few fathoms driving. These are the facts that have caused the rise in the price of shares—a rise not equal to the increase in their value.

**THE GREAT DARREN MINE.**—At some period too remote for accurate history, the Darren Hill, along the back of the vein, was worked for copper ore. The people of those times worked this rich lode of copper by means of stone mallets, and possibly stone wedges, but there is not much evidence of the latter sort of materials, although the mallets are now frequently found in the old groves, or surface excavations, in great number, and testify to the amount of trouble these old miners must have had to cut out a small amount of this copper. The copper ore is, however, rich, beautiful in appearance, and worth from 25 to 30 produce for copper, and easy for smelting. We have very little evidence for what purpose this metal was raised, possibly for spear-heads, arrows, or even wedges with which to excavate the ore; but for whatever purpose it was raised, it was evidently of the greatest value to them, and probably worth more, weight for weight, than gold is worth to us. Long after these early days in the history of mining the Romans came to the same spot to work the silver-lead. They were a people well acquainted with the use of the metals and their chemical combinations; working the ground away skillfully, they firmly possessed themselves of the old Darren Hill, encamping themselves strongly on its crest. It is curious to observe that these different races of people established themselves immediately over the same rich ore ground, digging out the very ore of the lode in forming the trenches of their camps, and now in our own day fully 600 feet below the stronghold, the miners of this generation are busily engaged in digging out rich masses of ore at points deeper than had ever been attained in this old mine before. How much deeper future generations will be able to follow the ore we to us still a mystery, an unsolved problem, but there is no doubt, since the length of the ore ground in this old mine is fully ½ mile, and where the vein is being worked it yields no less than 401. worth of silver and lead to the fathom, leaving a large residuum of profits, that if we

could be allowed to see this famous old work 100 years to come, we should witness something extraordinary with reference to our notions as to deep mining. At that time they will most probably reach a depth that would be deemed incredible by the most sanguine miner of this age.

## THE TIN TRADE.

The month which has just closed has been of the greatest importance to all those interested in this article. The arrivals both of Banca and Straits have been enormous, and amount to the unprecedented figure of 38,070 slabs, equal to 1865 tons, thereby increasing our already heavy stock to 3500 tons. Such a quantity of tin has never been collected together in this port, and at present there does not appear any prospect of its being lessened; on the contrary, there are indications that the steady accumulation will continue, as there are about 1100 tons of Straits still afloat for England, and some considerable purchases of Banca have still to be brought over from Holland during the next four months. It is not to be wondered at, under these circumstances, that many holders should have lost confidence in the article, and the market shown great heaviness, coupled with a decline in price. Throughout the month the Dutch houses have been continually making offers, and pressing their surplus Banca for sale in this market. Although several heavy sales were effected, it did not give them the relief they anticipated, and at one time offers even as low as 60 s. could not be placed. Holders of Straits followed the same course, and gradually giving way in their demands, finally accepted 100 s. This seems to have been a rebounding point, as the market since has recovered considerably. Thus our anticipations for months past have been realised, and we can only repeat our so often expressed opinion that, unless shipments from Penang and Singapore entirely cease for some time, and the consumption of foreign tin rapidly and materially increases, further disappointments will be in store to present holders.

With reference to the importation of Straits, we have every reason to believe that, stimulated by the high prices ruling for the last few years, the production has materially increased, and as it is impossible for China, India, and Japan to absorb more than a part of the production, a considerable portion must find its way to this market, especially in the absence of the usual American demand. As for an increase in our home consumption, we have to look principally at the state of our tin-plate trade, the condition of which, at the present moment, is most unfavourable, and as long as the American war lasts, it is not likely to show much improvement. At present the tin-plate makers only supplying themselves very sparingly, as, in consequence of the want of water, their works are almost stopped, and their requirements are freely supplied by the English smelters, who, notwithstanding the comparative low price of foreign tin, have for some time past been vying with each other in securing a market for their makes, which, by the way, would seem to disprove an assertion we have seen, that the production of English tin has materially fallen off during the first eight months of this year. It has been very truly remarked that, when we look at the heavy stock, we should also look at the low prices now ruling; but we think that if a comparative statement were made, it would be found that prices are by no means lower than are warranted by the excessive supply. Till the lowness of the price begins to tell upon the article itself, by its being applied to other purposes for which, though suited, its dearness has hitherto excluded its being used; till we see these enormous stocks beginning to move off, and the tide setting the other way, we cannot say that prices are cheap, or recommend purchases as an investment. Every four months puts 31. a ton on to the price of tin, and those who have waited for the good day, which is so long in coming, would perhaps have done better to have accepted their original loss, and then go in again at lower prices, on the eve of brighter times. The quantity of tin here and in Holland on August 31 was as follows, compared with the three preceding years:

	1861.	1862.	1863.	1864.
Slabs. Tons.	Slabs. Tons.	Slabs. Tons.	Slabs. Tons.	Slabs. Tons.
Stock in Holland	99,900—3200	100,089—3400	105,408—3270	94,011—2920
Arrived for next sale	17,352—560	21,997—748	27,632—850	20,892—650
Stock here	3,560	2,554	1,915	900

Total tons ..... 7260 ..... 6702 ..... 6035 ..... 4470

The quantity of tin now afloat for England is 1099 tons, against 637 tons last year, and to the continent of Europe 66 tons.

**ENGLISH TIN.**—There has been no change in the official price, and the demand has been fully equal to the supply.

**STRAITS** at the commencement of the month stood at 105 s. 10s.; but the price gradually declined to 100 s. From this there was an immediate improvement, and the present prices are 103 s. cash, and 104 s. 10s. for three months' prompt.

**BANCA.**—Owing to the pressure to sell on Dutch account, the price declined from 106 s. 10s. to 101 s. 10s. but a reaction has set in, and the last sale was at 103 s. 10s.; holders now ask higher prices. In Holland the price declined to 60 s. 10s., but has since recovered to 61 s. 10s., and is firm thereat. The official returns from Holland are as follows:

	1861.	1862.	1863.	1864.
Stock on warrants, July 31	154,420	129,855	138,043	136,037
Delivered during August	55,520	29,764	30,637	30,637

Stock on warrants, Sept. 1 ..... 98,900 ..... 100,089 ..... 105,408 ..... 105,408

Arrivals towards next sale ..... 17,352 ..... 21,997 ..... 27,632 ..... 27,632

Arrivals of tin in London during August were as follows:—Straits, per "Devondale," 3287 slabs; do, per "Kalahome," 2957; do, per "Scotland," 3434; do, per "Claymore," 4901; do, "Eliza Thornton," 1126; do, per "Sophie George," 2015; Banca, from Holland, 39,950; total, 38,070 slabs. Making since Jan. 1 to London—

	1861.	1862.	1863.	1864.
Banca	31,447	17,537	7,973	4,315
Straits	51,826	29,898	54,770	50,844
Total	83,273	47,435	62,743	55,159

We estimate the present stock of tin in warehouse here at 3500 tons. The import and export of tin during the month of July, and the first seven months of this year, compared with 1862 and 1863, has been as follows:—

	1862.	1863.	1864.	1865.
Import—Cwts.	6,476	2,655	42,384	22,024
Export—Foreign	911	2,112	2,348	16,753
English	10,994	10,239	49,189	46,737
Total	17,381	14,806	93,921	75,514

The export of tin from Singapore, from June 22 to July 22 was to Great Britain, 261 pekils; Continental Europe, nil; America, 187 pekils—price \$25. From Penang, during the same period, the export was—Great Britain, 20,068 pekils; Continental Europe, 1700 pekils; America, nil—price \$24½ dollars.

**TIN-PLATES.**—Owing to the continual drought, the make has been still further curtailed. Stocks everywhere must necessarily have been much reduced, and an improved demand would probably cause a decided advance in prices. The declared value of tin-plates exported during the month of July last, and the first seven months of this year, compared with 1862 and 1863, has been as follows:—

	1862.	1863.	1864.	1865.
Month ended July 31	£121,283	£122,229	£73,812	£60,445
Seven months ended July 31	£604,445	£667,337	£685,673	£685,673

**THE TIN TRADE.**—Under date Rotterdam, Aug. 31, Mr. L. Th. van Houten writes:—The following is the monthly statement of Banca tin published this morning by the Dutch Trading Company:—

	1864.	1865.	1866.	1867.
Slabs 9,919	13,993	14,331	111,397	79,161
August	13,993	14,331	111,397	79,161
DELIVERIES.	1864.	1865.	1866.	1867.
Slabs 55,820	29,766	30,637	123,559	88,743
Stock on warrants, Aug. 31	1864.	1865.	1866.	1867.
Slabs 98,900	100,089	105,406	17,352	21,997

**THE COPPER TRADE.**—Mr. J. Pittcairn-Campbell, of Liverpool, reports:—There has been more disposition to do business both in English and foreign copper, though the former is still obtainable 21. under quotations. Chili bars continue very firmly held, and ore and regulus being scarce, command full rates. Average of Swansea sale, on Aug. 30, 17s. 6d., being an advance of 21. 10s. in the standard. The statistics of copper exports from West Coast, &c., resolved by the last mail, show a large increase in the first six months of this year of 11,674 tons pure copper, as compared with the similar period of 1863, the figures being, up to June 30, 1864, 25,572 tons of pure copper shipped; up to June 30, 1863, 13,898 tons of pure copper shipped. It would appear, however, that these heavy shipments had exhausted the stocks held on the coast, and that the exports for the third quarter would be light. Transactions in the fortnight have been—

	Aug. 1—130 tons regulus, to arrive, per "Ocean King"	£ 0 17 9	per unit.
"E. Martin"	16—470	85	0 17 9
bars, second hands, nett, two months	16—63	85	0 17 9
Barilla, per "F. Nightingale"	16—32	85	0 17 9
Barilla, at Swansea	16—32	85	0 17 9
Barilla, per "C. Colon"	16—32	85	0 17 9
bars, second hands	16—400	85	0 17 9
ore, per "Athelston," Swansea	16—221	85	0 17 9
regulus, "Limona"	16—221	85	0 17 9
Canadian ore, by tender	16—113	85	0 17 9
Connoire	16—27	85	0 17 9
regulus, per "Star of the West"	16—27	85	0 17 9
"Zehama"	16—27	85	0 17 9
regulus, second hands	16—60	85	0 17 9
regulus, per "C. Colon"	16—30	85	0 17 9
"Bodryddon"	16—30	85	0 17 9
ore, per "Oracle"	16—30	85	0 17 9
California ore, by tender	16—127	85	0 17 9

Quotations are 17s. 9d. for ore and regulus, 87 s. for bars, and 18s. 3d. for Barilla. Arrivals from West Coast since my last have been—"Star of the West," Carizal, 537 tons regulus. Stocks of Chili in first and second hands, as nearly as they can be estimated, likely to be available—

	Ores.	Regulus.	Bars.	Barilla.
Tons 1860	635	3200	33	33

**EXPORTS OF SCOTCH PIG.**—It appears that the exports of Scotch pig-iron for the first seven months of this year compare as follows with the corresponding movement in 1863, 1862, 1861, and 1860:—

	1860.	1861.	1862.	1863.	1864.
Month	1860.	1861.	1862.	1863.	1864.
January	34,476	30,467	39,614	39,370	39,370
February	45,843	38,807	39,614	39,370	39,370
March	61,525	60,909	44,495	33,674	39,370
April	76,176	70,995	66,975	77,386	63,858
May	64,698	54,170	56,646	67,302	63,828
June	53,019	51,167	52,167	57,201	40,712
July	63,619	62,639	51,716	60,275	58,795

Total ..... 403,356 ..... 361,855 ..... 346,342 ..... 365,945 ..... 321,453

The general result here disclosed are satisfactory. Thus the exports of Scotch pig to July 31 this year were 41,501 tons in excess of those effected in the corresponding period of 1863, 57,014 tons in excess of those effected in the corresponding period of 1862, 37,411 tons in excess of those effected in the corresponding period of 1861, and 81,903 tons in excess of those effected in the corresponding period of 1860. Comparing 1864 with 1860, we arrive at an increase of 25.88 per cent., as compared with 29.36 per cent. at the end of June, 29.41 per cent. at the end of May, and 31.36 per cent. at the end of April.

## The Mining Market; Prices of Metals, Ores, &amp;c.

METAL MARKET—LONDON, SEPT. 2, 1864.				
COOPER.		£ s. d.	£ s. d.	
Best selected	99 0 0	0-101 0 0		
Tough cake	96 0 0	0-98 0 0		
File	96 0 0	0-98 0 0		
Barra Barra	101 0 0	0-0		
Copper wire	101 0 0	0-1 1 1		
ditto tubes	101 0 0	0-1 1 1/2		
Sheeting & bolts	101 0 0	0-102 0 0		
Bottoms	112 0 0	0-0		
Old (Exchange)	91 0 0	0-0		
IRON.		Per Ton.		
Bars Welsh, in London	7 15 0	0-0		
Ditto, to arrive	7 15 0	0-0		
Mail rods	9 10 0	0-0		
" Stafford, in London	9 10 0	0-0		
Bars ditto	9 10 0	0-0		
Hoops ditto	10 10 0	0-0		
Sheets, single	11 10 0	0-0		
Fig No. 1, in Wales	4 10 0	0-0		
Refined metal, ditto	4 0 0	0-5 0 0		
Bars, common, ditto	7 0 0	0-0		
Do, merch, Tyne or Tees	8 5 0	0-8 10 0		
Ditto, railway, in Wales	7 0 0	0-7 10 0		
Ditto Swed. in London	12 0 0	0-12 5 0		
To arrive	12 0 0	0-0		
Fig No. 1, in Clyde	2 18 3	3-3 3 0		
Ditto, f.o.b. Tyne or Tees	2 16 0	0-2 18 0		
Ditto, forge, f.o.b. ditto	2 15 0	0-0		
Railway chairs	5 10 0	0-5 15 0		
" spikes	11 0 0	0-12 0 0		
LEAD.				
English Pig, ordy, soft	20 5 0	0-20 10 0		
Ditto (WB)	22 10 0	0-0		
Ditto sheet	21 15 0	0-0		
Ditto red lead	22 0 0	0-0		
Ditto white	26 0 0	0-26 5 0		
Ditto patent shot	23 0 0	0-0		
Spanish	19 10 0	0-0		
SHEETS.		Per Ton.		
Wire	114-0	0-0		
Tubes	104-0	0-0		
FOREIGN STEEL.		Per Ton.		
Swedish, in kegs (rolled)	16 10 0	0-16 15 0		
(hammered)	17 0 0	0-16 15 0		
Ditto in fagots	17 0 0	0-16 15 0		
English, Spring	19 0 0	0-19 0 0		
Bessemer's, Engineers Tool	44 0 0	0-0		
" Spindle	30 0 0	0-0		
QUICKSILVER (per bottle)	8 0 0	0-0		
SPLINTER.		Per Ton.		
Foreign	24 5 0	0-24 10 0		
To arrive	24 10 0	0-25 0 0		
ZINC.				
In sheets	28 0 0	0-0		
TIN.				
English, blocks	104 0 0	0-0		
Ditto, Bars (in barrels)	105 0 0	0-0		
Ditto, Refined	109 0 0	0-0		
Bars	104 10 0	0-0		
Straits	104 0 0	0-0		
TIM-PLATES.				
IC Charcoal, 1st qua. p. box.	1 8 0	0-1 10 0		
IX Ditto 1st quality	1 14 0	0-1 17 0		
IX Ditto 2d quality	1 6 0	0-1 10 0		
IX Ditto 2d quality	1 13 0	0-1 14 0		
IX Coke	1 10 0	0-1 10 0		
IX Ditto	1 9 0	0-1 11 0		
Canada plates	13 10 0	0-0		
In London	13 0 0	0-0		
Yellow Metal Sheathing, p. lb. 8 1/4 d.				
Sheets	8 1/4 d.	0-0		
Indian Charcoal Pigs	7 0 0	0-7 10 0		
In London	7 0 0	0-7 10 0		

\* At the works, 1s. to 1s. 6d. per box less.



Copper ores for sale on Thursday next, at Tabb's Hotel, Redruth. - Mines and parcels. - East Carn Brea 358 - Prosper United 301 - Wheal Margery 269 - West Bassot 269 - East Rosewarne 160 - Trelovelth 131 - Tolvadden 123 - Far Consols 85 - Nanigles 72 - Copper Hill 67 - Wheal Uyn 63 - Wheal Buller 58 - New Rosewarne 36 - North Bassot 27 - West Trevelyan 29 - Crown Consols 17 - Wheal Agar 15 - Wheal Emily Henrietta 12 - Great Wheal Fortune 11. - Total, 2083 tons.

NO SALE on Thursday week, September 15. 1



## WATSON AND CUELL'S MINING CIRCULAR.

WATSON AND CUELL,  
MINING AGENTS, STOCK AND SHARE DEALERS, &c.  
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

Messrs. WATSON and CUELL having made arrangements for transferring their weekly Circular, which has had so large a circulation during the past ten years, to the columns of the *Mining Journal*, their special reports and remarks upon Mines and Mining, and the state of the Share Market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. Watson, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with Statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium published in 1843 Mr. Watson was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. Watson and Cuell have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share-dealing than there is at present; and, from the lengthened experience of Messrs. Watson and Cuell, they are emboldened to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON and CUELL transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt, and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON and CUELL also inform their clients and the public, that they transact business in the public funds, railways, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON and CUELL are almost daily asked their opinion of particular mines, as well as to recommend mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON and CUELL having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are enabled to supply shares in all the best mines at close market prices, free of all charges for commission.

**CORRESPONDENTS.**—We have so many questions asked us every week, that we may as well reply in this column to those that are of public interest, and where answers may serve to enlighten others as well as those who enquire.—1. The Cost-book System is a mutual partnership from which any shareholder, or partner, may retire by sending a letter to the purser, or secretary, relinquishing his interest in a mine, and paying up his proportion of the debts to the date of his relinquishment,—or, rather, to the end of the month in which he resigns. In some mines he can claim his proportion of assets, machinery, &c., payable in two years; in others, there is a special rule against this claim. The forfeiture of shares under the cost-book is perfectly legal, where there is a rule to that effect, and subscribed to by all the shareholders at the formation of the company. The original shareholders thus bind those to whom they transfer, the latter accepting shares on the same terms as they were held. In a company formed without the rules for forfeiture they cannot be subsequently made without the consent of every shareholder. The forfeiture of shares does not free the holders from the debts, and in many cases they are being sued by creditors, and very properly so; for it is very unfair that anyone should shirk his fair proportion of costs. The Limited Liability Act has never answered in regard to mines, and, in our humble opinion, never will. It is impossible to fix the amount of capital required to prove a mine; therefore the cost-book, under which money is provided as required, is the best system. Besides, what is limited liability? A capital of 20,000*l.* is raised (say) in 5000 shares of 4*l.* each, and a person taking 100 shares makes himself responsible for 400*l.* in periodical payments, and beyond that sum he is not liable; but if the capital is all expended before results are obtained more must be raised somehow, or the mine be stopped at a time, perhaps, when it ought to be worked vigorously. If not stopped, then fresh capital must be raised by preference shares, or by repeated calls, until the original shares are of no value, and have little prospect of ever benefitting by the mine.—2. We never advise ladies to speculate in mines, and even gentlemen should do so with money they can lose without inconvenience, if results turn out unfavourable. If we could tell, as many correspondents ask us, how to invest money with the certainty of making large profits, there would be an end of all speculation, and we could make our own fortunes in a month. We can advise honestly, and do so, to the best of our judgment and ability, as to what we have reason to believe will rise, and no one can do more.—3. We have before explained that there are always two parties in the market—those who uphold, and those who depress—and the latter, or the "bears," are generally the strongest. If 20 horses run for the Derby, and you bet against the lot, it is quite clear you must be a winner on 19, and upon this principle—bearing shares in a number of mines makes the chances in favour of the "bear," just the same as the principle we have always advocated in mining—that of a division of risk in half a dozen mines, securing success in the aggregate.—4. "Wheat" is a corruption of the old Cornish word *Huel*, signifying a mine, and to say "Wheat Uny Mine" is tautology, though it is generally so written. We published a "Glossary of Mining Terms" many years ago, and an excellent one may now be had at the *Mining Journal* office for 2*s.*—5. As a rule we have never advocated Foreign Mining, nor recommended shares in foreign schemes. We prefer Cornwall and Devon, where we can learn the state of the mines whenever we choose to send an agent.—6. We believe there is more than one Prince of Wales Mine; but that with which we are connected, and recommended, adjoins Drake Walls, and has fine prospects for tin: 50*l.* will buy 200 shares, and the calls are only 6*d.* per share when made. The agents are daily expecting a discovery in Watson's shaft. The mine is held under a grant from H.R.H. the Prince of Wales. In driving on the lode from shaft there is fine black and yellow ore.

**REDMOOR.**—For some months past the men have been occupied in moving the engine to as fine a copper lode as was ever seen at the depth in this district. The engine went to work on Saturday, and we should shortly look for great results.

**EAST BOTTLE HILL.**—The discovery here is said to be a fine one; and we shall be anxious to see Capt. Chas. Thomas's report.

**HALLENBEAGLE.**—We have no interest in this mine, and have never on any one occasion "beared" a single share. Several parties write us for advice; and from what we can learn as to the true state of the mine, we believe it will do well in time, but a heavy outlay will be required for machinery, and it will take several months to get down to another level. We should, therefore, wait a few months before purchasing. We believe the great blow of Capt. Charles Thomas's report has been in the fact that a very large number of shares had been purchased for a rise, and that many persons had been induced to sell out their East Grenvilles to invest in Hallenbeagle.

**PRINCE OF WALES.**—The lode has been cut west of Watson's shaft just through the cross-course, which was 8*ft.* wide; the lode is not yet out of the influence of the cross-course, but has in it occasional rich stones of black, grey, and yellow copper ore, of a most promising appearance, and evidently near a good discovery.

**GRYLLS WHEAL FLORENCE.**—The lode in the engine-shaft maintains its size and value, 30*ft.* per fathom for tin, with rich stones of copper.

**WHEAL UNITY.**—The winze is now down 2 fathoms, and the black ore giving place to grey. We shall close the list for the purchase of the forfeited shares on Wednesday next, and those who have not yet signified their intention of joining us in the purchase will please to do so by that date.

**PETROLEUM.**—During the first half of 1863, 21,061 tons were imported, but the quantity imported during the corresponding period of 1864 was only 5652 tons; and in the month of June the imports were only 883 tons, against 5391 tons in the same month of last year. This extraordinary falling off is attributed to the diminution in the supplies from the United States, only 4000 tons having been received from that quarter from January to June, 1864, against 20,000 tons for the same period of last year. The difference in the value of the importations is about 145,000*l.*

## THE CHILIAN MINING AND TRADING COMPANY

(LIMITED).  
Incorporated under the Companies Act, 1862, with limited liability.  
Capital £400,000, in 17,000 shares of £20 each.  
Deposit on application £1 per share, and on allotment £4 per share.  
Calls not to exceed £5 per share, and at intervals of not less than three months.

**DIRECTORS.**  
JOHN VANNER, Esq., Coleman-street (a Director of the City Bank).  
JAMES ALFRED HALLETT, Esq. (Messrs. Hallett, Ommann, and Co., Bankers), Great George-street, Westminster.  
Rear-Admiral GBO. GREVILLE WELLESLEY, C.B., 10 Wilton-street, Grosvenor-place.  
THOMAS WOOD HEATON, Esq., Gillingdune, Falmouth.  
BAMPFON WATERS, Esq., 11, Southwick-crescent, Hyde Park-square (of the firm of A. Henshaw and Co., Valparaiso).  
THOMAS GARLAND, Esq., Fairfield, Redruth, Cornwall.  
(With power to add three to their number.)  
**BANKERS.**—The City Bank.  
The Consolidated Bank, Manchester.  
The Liverpool Union Bank, Liverpool.  
Messrs. Tweedy, Williams, and Co., Truro.  
**SOLICITORS.**—Messrs. Stuart and Massey, 8, Gray's Inn-square.

**ABRIDGED PROSPECTUS.**  
This company is formed for the purpose of purchasing and working two copper mines in Chili, called Descubridora and San Pedro, and of acquiring certain freehold premises, plant, and stores, together with an existing trade in connection therewith, at the ports of Chanaral and Pan d'Auscar.  
Arrangements have been made for the purchase by the company of the Descubridora Mine for £135,000, and of the San Pedro Mine and other property for £160,000. The vendors will take amongst themselves and their friends capital to the amount of one-fourth of the purchase money. The payment of the cash portion of the purchase money will be deferred until the titles shall be approved, and the properties actually vested in the company or its nominees, according to the laws of Chili. No promotion money will be paid by the company.

The following is a description of the mines:—  
**DESCUBRIDORA.**  
This mine is about 28 miles from the port of Pan d'Auscar, to which there is a good road. It has been worked since 1859, and is as yet wrought only about 30 fms. from the surface. The main lode varies from about 30 to 90 ft. wide; near the surface it produced red oxide of copper and green carbonate; in other parts it yields grey sulphure of great richness, which has produced about one-third metal. There is also an abundance of yellow sulphure, which yields 25 per cent. of copper. The levels have been opened on the lode about 70 fms. in length. Since the contract for the purchase was made the main shaft has been sunk 15 fms. under the 30 fm. level. The lode has been cut into at that depth for 40 ft. in width, and consists of ore yielding about 25 per cent. of metal.

**SAN PEDRO.**  
This mine is 50 miles from the port of Chanaral, to which there is a good road. The mine was discovered seven years ago, and has been opened to the depth of about 100 fms. The average width of the lode is about 40 ft.; it has been rich from the surface, the ore mostly a grey sulphure, which has yielded about one-third metal. The bottom of the mine is very rich, but hitherto the workings have been almost entirely confined to a part of the lode not exceeding 25 fms. in length, between two cross-courses. In a recent report the agents stated that they had driven, at 50 fms. in depth below the adit, into the lode east of the eastern cross-course. They had penetrated about 10 ft. into the lode, and found it productive of ore of as good quality as had been raised from the other workings. An accident having happened to the shaft, by which operations have been partially suspended, the directors have contracted with Mr. Waters for sinking a new shaft from the surface, and extending a level therefrom under the bottom of the mine, so as to put it into complete working order, for the sum of £10,000. The time necessary for the completion of the work is estimated by the agents on the spot at ten months, dating from February last, and the work is in progress. There is no water of any consequence; a winch, working two hours daily, draws the water, which is worth for dressing the ore far more than the cost of doing so. The contract for the purchase was made very favourably, intelligence has been received from this mine also. In cutting through some ground to expedite the sinking of the new shaft a course of rich ore has been intersected, through which the agent reports that 15 ft. have been driven. The ore is a solid mass of the best quality, being about 30 per cent. It should also be stated that, independently of that part of the lode which yields ore of the rich quality already referred to, there are lying on the surface at the mine, and included in the purchase, many thousands of tons of ore of a lower quality, which yield from 12 to 15 per cent. of copper, and only require dressing to prepare them for exportation. There is also a shaft sunk from the surface about 50 fms. east, and entirely independent of the present workings, and wrought to a depth of about 25 fms., which lays open a vast quantity of ore, at least equal in quality.

Both these mines are held under grants from the Chilean Government. There is no royalty, but a duty of £2 per ton is payable on all copper ore exported from the country. Not less than £50,000 has been expended on the plant and machinery at the mines, and on the various warehouses, workshops, wharves, mules, horses, carts, and general stores, which are included in the purchase.

In addition to the mines there is a general trade in the purchase of ores from other mines, and in the sale of various articles to supply the wants of the mining and general population, and there is also a distillery at the port of Chanaral for getting fresh water from the sea.  
The profits for the year 1863, arising from the mines and other sources of revenue, have been at least £75,000, estimating three unsold cargoes at 18*s.* 6*d.* per unit. The ore has been sold in England, by Messrs. Frederick Huth and Co., of London and Liverpool, whose accounts may be seen at the offices of the company.  
It thus appears that the net profits to the company may be estimated at upwards of 20 per cent. per annum, with a prospect of increase as the mines become further developed.

The company will be entitled to possession of the Descubridora Mine as from the 1st day of January, 1864, and of the San Pedro Mine, and of the trade and premises at the port of Chanaral as from the 1st day of April, 1864. Interest at the rate of £5 per cent. per annum on the purchase money of Descubridora, and at £10 per cent. per annum on the remainder of the purchase money, will be payable to the vendors from the dates of possession, until full payment of the purchase money.

Two cargoes of ore, containing about 1000 tons, have already arrived to the account of the company, and another cargo is on the way.  
Sampson Waters, Esq., the principal proprietor of the property, who has resided upwards of 20 years in Chili, and who has been actively interested in the working of the mines from their commencement, William Müller, Esq., the other proprietor, who has also resided in Chili, and Thomas Garland, Esq., of Redruth, who has long been conversant with the working of copper mines in Cornwall, have consented to join the board, and to render their best assistance in conducting its affairs.

A copy of the Memorandum and Articles of Association can be inspected at the offices of the company, and of the solicitors.  
Detailed prospectuses and forms of application for shares can be obtained at the offices of the company, of the bankers and brokers to the company, and of the solicitors.

**THE DEVON GREAT MARIA CONSOLIDATED MINING COMPANY (LIMITED).**

Capital £50,000, divided into 2000 shares of £25 each.  
Deposit, £2 10*s.* per share upon application, and £2 10*s.* per share upon allotment.

**DIRECTORS.**  
CHARLES JOSEPH CARTAR, Esq. (Coroner for Kent), Catherine House, Blackheath, S.E.  
JOHN JOHNSTONE, Esq., J.P., Friarston House, Leith, and 31, Belgrave-road, S.W.  
JOSEPH JOHNSTONE, Esq., Great George-street, Baywater, W.

And two members of the board to be elected from the body of shareholders at the first general meeting.

**BANKERS.**—The Metropolitan and Provincial Bank (Limited), 75, Cornhill.  
**SOLICITOR.**—Frederick W. Snell, 1, George-street, Mansion-house, E.C.  
**AUDITORS.**—Sydney G. Smith, Esq., public accountant, 19, Coleman-street, E.C.  
And one member to be elected from the body of shareholders.

**ENGINEER.**—Mr. William H. Gray, St. Austell, Cornwall.  
**LOCAL MANAGER AND PURSER.**—Capt. Richards.  
**SECRETARY.**—Mr. Thomas Spargo.

Nos. 224 and 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON.

**PROSPECTUS.**  
This company has been formed for the purpose of working an extensive mineral property, situated immediately to the west of the celebrated Devon Great Consols, which, upon an outlay of £1024, has paid in dividends £945,152, the present value of that property being £588,800.

The geological position of the two mines is identical, and the same lodes pass through the entire length of the shaft; it is, therefore, reasonably expected that equally favourable results will be realized.

The total outlay required to bring the mine into a profitable state of working has been carefully investigated, and cannot exceed £10,000.

The directors have the utmost confidence in recommending this investment to their friends and the public. It has elements of success equal, perhaps superior, to any mining enterprise, undertaken since the issue of shares in the Devon Great Consols Mine, adjoining.

The directors have already received applications for a considerable number of shares, and the allotment letters will be issued in order of date of application.

Applications for shares to be accompanied by a deposit of £2 10*s.* per share, and £2 10*s.* per share will have to be paid on allotment.

The directors do not bind themselves to call up more than £10 per share, and shareholders will have the option of pre-payment only to this amount, upon which interest at 6 per cent. will be paid.

The operations at the mine are being carried on with all possible dispatch, under the able superintendence of Capt. Richards, whose report is annexed.

The company will be incorporated under the Companies Act, which limits the liability of shareholders to the amount of their respective subscriptions.

Applications for the remaining shares may be made in the usual form, addressed to the secretary, directors, or bankers.

The report from Captain Joseph Richards, mineral agent for the Right Hon. Earl Fortescue, justifies the expectations of the directors. The captain's practical knowledge of the underground workings of the Devon Great Consols, and long acquaintance with the run of lodes and their connection with this property, constitute him an indisputable authority.

I beg to hand you my report of this mine. It is situated directly east of New Wheal Martha, and west of the Devon Great Consols, and is in a direct line with the main lode of these mines, so that it may be considered as occupying a first-rate position. The great lode of New Wheal Martha and the main lode of Devon Great Consols run directly through the shaft, so do also other lodes of very great promise. Two shafts are sunk, and levels driven. I feel assured that the prospects are such as to guarantee large returns of copper ore, and am, therefore, justified in recommending the Great Devon Maria as a very superior property. In addition to the very fine appearance of the lodes themselves, there are cross-courses and intersections, on which are often found the most splendid and valuable courses of ore. Any investors with whom my counsel has weight should promptly secure an interest, for, in my belief, the prospects of this mine are not exceeded by those of any other mine in the two counties.

JOSEPH RICHARDS, St. John's, Lamerton.

## THE CENTRAL SNAILBEACH MINING COMPANY

(LIMITED).  
Capital £40,000, in 40,000 shares of £1 each.  
2*s.* 6*d.* per share with the application, and 1*s.* 6*d.* payable on allotment.

**DIRECTORS.**  
JOB TAYLOR, Dudley.  
EDWARD HENRY LOWE, Shrewsbury.  
GEORGE JOSEPH ENGLAND, Dudley.  
The Rev. THOMPSON STONEHAM, Kestley.  
WILLIAM PEARSON, Stourbridge.  
THOMAS PROCTOR, Most Hall, Shrewsbury.  
**BANKERS.**—Messrs. Locke, Eytton, Campbell, and Bayley, Shrewsbury.  
**SOLICITOR AND SECRETARY.**—S. Harley Kough, Shrewsbury and Church Street.  
**REGISTERED OFFICES.**—SWAN HILL, SHREWSBURY.

The company's extensive sett, on the run of the champion and other lodes, adjoins the western boundary of the Snailbeach Mines, in Shropshire, long celebrated for its immense and increasing returns of lead ore.

A continuation of the Snailbeach champion lode is that on which this company recently commenced sinking a winze, now 8 yards below the 124 yard level, in which there is a leader of pure lead, exceeding 3 inches in width.

As the winze deepens the lead increases, and there is every reason to believe that when this lode is fully developed the mine will prove as rich as its neighbour—the Snailbeach. The capital was £10,000, of which nearly £5000 were subscribed.

The workings are carried on judiciously and with vigour; but the company, having an offer of a great addition to their sett, and determining to deepen their mine, agreed on 29th July, 1864, to increase their capital to £40,000, issuing shares as the proposals and requirements of the mine justify.

The public are invited to subscribe for a limited number of shares, while such for a short period remain at par.

Specimens of the ore, as also photographs of the sett and neighbourhood, can be inspected at the offices of the *Mining Journal*, 26, Fleet-street, London, E.C.; in Manchester, at 44, Spring-gardens; in Birmingham, at the offices of *Rylands' Iron Trade Circular*, 53, Union-passages, and those of the *Midland Counties Herald*; and of the company, Swan-hill, Shrewsbury, where early applications for shares must be addressed to the secretary, who will forward reports and afford every information.

August 16, 1864.

## WHEAL PRUDENCE COPPER MINING COMPANY

(LIMITED).  
Registered under the Joint-Stock Companies Acts, with limited liability.  
In St. Agnes, in Cornwall.  
Capital £25,000, in 25,000 shares of £1 each.  
Of which 17,000 are already subscribed.

Deposit, 5*s.* per share. Subsequent calls not to exceed 2*s.* 6*d.* per share, at intervals of three months.

**DIRECTORS.**  
JOHN BRAY, Hill House, Scarcroft, near Leeds, Railway Contractor.  
MATTHEW TODD, Messrs. M. and J. Todd, Bradford, Woolcombers.  
WILLIAM HENRY WILKS, Moor Grange, Headingley, near Leeds, Colliery Owner.  
ELV JONES, Halifax, Woolstapler.  
JOSEPH STORR, Upper Fountain-street, Leeds, Gentleman.

**BANKERS.**—Messrs. Beckett and Co., Leeds.  
**PURSER.**—C. and C. Thomas, Redruth and London.  
**ENGINEERS.**—Michell and Jenkin, Redruth.  
**SECRETARY.**—Edward Hinde.

**REGISTERED OFFICE OF THE COMPANY.**—18, EAST PARADE, LEEDS.

The Wheal Prudence Mines, now in operation, are situate at St. Agnes, in Cornwall, within the lands of His Royal Highness the Prince of Wales, in a district renowned for an early period for its metalliferous productiveness, and surrounded by mines which have produced to their proprietors enormous riches.

The lithological features which this sett presents are of the most successful character, being at the junction of the granite and clay-slate, the latter stratification being a light coloured schist, precisely analogous to that of the Ferran Great St. George, Wheal Lasure, Great Wheal Criblog, Wheal Basset, and Wheal Music Mines, every one of which realised ample profits; traversed by numerous large and well-defined lodes, two highly congenial elvan courses and five cross-courses intersecting the lodes and elvans at nearly right angles.

Several of the lodes traversing the north part of the sett are the well-known and productive lodes of the Ferran Great St. George and Wheal Lasure Mines, many of which are visible on the surface, presenting on their backs numerous rich branches and stores of ore.

The great object in resuming these mines was to intersect these lodes, and with that view the present company have erected efficient pumping and winding engines, calculated to carry on mining operations for a long period, and to great depths; have drained the mines, and are now driving out a cross-cut from a deep level to intersect these celebrated and productive lodes. They are also developing the Wheal Prudence lode.

17,000 of the shares are already subscribed for, and the directors are now authorised to issue the remaining 8000, which they can confidently recommend, as they are not asking the public to incur the risks incident to mining—viz., in the drainage of the mines and discovery of ores, as they have already been overcome, and copper ores ascertained to exist, which require only further capital to develop, and in the opinion of the directors render the concern a highly lucrative and permanent investment; in confirmation of which extracts from the *Mining Journal* and from the reports of eminent and disinterested mine agents are annexed.

If no allotment of shares is made the deposit will be returned in full.

Applications for shares to be made to Mr. EDWARD HINDE, 18, East Parade, Leeds, in the form annexed; or to Messrs. C. and C. THOMAS, Redruth, Cornwall.

Extract from *Mining Journal*, Saturday, May 28, 1864.

**WHEAL PRUDENCE MINES.**—These mines are situate in St. Agnes, Cornwall, at the junction of the granite and clay-slate, and contain, in addition to the Wheal Prudence lode, the lodes of the renowned Great St. George Mines, which returned over the value of £700,000. The present company are driving a cross-cut in the 42 fm. level to intersect these lodes, from the first of which the head of the cross-cut is only distant about 20 fm. They also have the Wheal Prudence lode in a cross-cut in the 62, driven from the engine-shaft, where they have a good lode of ore. The containing rock is clay-slate of the white kind, the lodes in which have never failed to be productive in the St. Agnes district. The lodes, too, are associated with elvan courses, running parallel to and dipping with them. Numerous cross-courses also intersect these lodes; in fact, the lithological features of a successful character, rarely combined in one sett. There is an effective 70 in. pumping engine at work, calculated to carry the workings to intersecting depths. The rest of the machinery is co-extensive in power with the pumping machinery, and the works have been laid out with a view to permanency, under the direction of Messrs. C. and C. Thomas, of Redruth. The company is incorporated with limited liability, with a capital of £25,000. The registered office is in Leeds, and Mr. Edward Hinde, of that town, is the secretary. The mines are little known at present out of Cornwall and Yorkshire, but merit a great notoriety, which they will suddenly attain on the cross-cut intersecting the Great St. George lodes, the driving of which is pushed on with the greatest energy.

Extract from the *Mining Circular* of Mr. ENDERB, Sharebroker, May 28, 1864.

**WHEAL PRUDENCE MINES, ST. AGNES.**—The lodes in these mines are a continuation of the Great St. George lodes, which produced £700,000 worth of ore, associated with elvan courses and numerous cross-courses; the mines are in full operation, drained by efficient machinery. There is a cross-cut going out to intersect these lodes, from which the drivings are distant about 20 fms. from the nearest of them. When it is cut it will create a sensation in the mining world of no ordinary character, and the shares command a high rise, probably of £200 or £300 per cent.

**EXTRACTS FROM REPORTS.**

The sett immediately adjoins the western boundary of the celebrated Ferran St. George Mine, which for a long period was exceedingly rich. All the lodes, especially the ferran lodes, are very favourably situate in a geological point of view. The enclosing rock, clay-slate or kyllas, being of the white kind, highly favourable in the St. Agnes district for the production of copper ores. This kyllas adjoins the Cliggar granite, and is similar in all respects to that in Ferran St. George and the St. Agnes Wheal Lasure Mines, the lodes in each of which have proved immensely rich. From a careful consideration of all the circumstances, and having regard to the present facilities for conducting mining operations, I am of opinion that this mine offers a prospect of success of no ordinary character.

CHARLES THOMAS, Manager of Dolcoath Mines.

On minutely inspecting the geology of the country in which the Wheal Prudence is situate, I have arrived at the conclusion that it is a very interesting piece of mining ground, and wonderful that it has never been explored to a greater extent many years ago. The lodes of the adjoining mine, Ferran St. George, traverse this sett, and might be intersected by cross-cuts, in very inexpensive ground, their productiveness in Ferran St. George giving much additional value to Wheal Prudence.

NICHOLAS VIVIAN, Late Manager of Conduff Mines.

The sett contains Wheal Prudence lode, Hanover lode, Good Fortune lode, Way's lode, and Lemon's lode, and these are intersected by cross-courses and elvan dykes; they are also a continuation of those that were so productive for copper to the east—viz., in Great St. George, Wheal Lasure, and Ferran United Mines. These mines returned immense quantities of copper ore, and gave great profits. We consider Wheal Prudence to be more than an ordinary mineral investment, and well worthy the attention of capitalists.

JAMES POPE, Manager of West Basset Mines.

JOHN DAW, Manager of Carn Brea Mines.

Capt. DAW, in a recent report obtained by a shareholder, states to the following effect:—At this point (the north level in the 62 fm. level) something good may be met with, as the former workers worked in the bottom of the 62 fm. level, west of the shaft, and the bottom of the 62 fathom level the lode has been worked away east and west many fathoms in length, for 3 or 4 fms. deep, so from this we may judge they had a good run of ore ground. In the 40 fm. level a cross-cut is driving north in light slate, congenial for mineral, to intersect lodes which have produced large quantities of ore to the east. I should recommend this cross-cut to be pushed with all speed, as it may lead to important discoveries. After such an outlay has been made, I should recommend this mine to be much further tried, by sinking the shaft and extending the levels.

Capt. EDWARD ROGERS, of Wheal Grylls, in a report to a large shareholder, states to the following effect:—The engine-shaft is down to the 62 fm. level, under adit, which is 112 fms. from surface. The water is cut to this depth, and the pitwork fixed in a very good and substantial manner, the shaft cast and divided, and put in proper working order for carrying on the mine properly and economically. I find the ancient workings at 4 fms. under this level (the 62), which must have been troublesome and expensive, but it shows that they had a rich lode to follow. At the shallow levels the lode is small, with showings of copper ore; as it gets deeper it is a very large and strong lode, with an immense quantity of muck, and at the two bottom levels copper is forming itself in large quantities. At the surface there is a good 70 in. cylinder pumping engine, and a new 24 in. winding engine and capstan. With these appliances, twelve months' further continuous working, with an outlay of about £4000, will put the mine in a paying state.

**FORM OF APPLICATION FOR SHARES.**

To the Directors of the Wheal Prudence Copper Mining Company (Limited).  
GENTLEMEN,—I request that you will allot me shares in the above-named company, and I agree to accept the same, or any less number than you may allot to me, and I agree to pay the deposit of 5*s.* per share thereon on request, and all calls duly made according to the rules and regulations of the company.

Name in full.....

Address.....

Signature.....



## THE ISLE OF MAN SLATE QUARRY AND GOLD MINING COMPANY (LIMITED).

Incorporated under the Companies Act, 1862, which limits the liability of each shareholder to the amount of his shares.  
Capital £100,000, in 100,000 shares of £1 each.  
Deposit on application 2s. 6d. per share, and 2s. 6d. on allotment.  
So call to exceed 2s. 6d. per share, and an interval of not less than six months between each call.  
A less number than 100 shares will not be allotted.

**DIRECTORS.**  
Capt. R. J. MARSH, R.N., Cottage House, Ramsey—CHAIRMAN.  
Capt. EWEN CAMERON, Glenfaba House, Peel.  
SAMUEL BROADBENT, Esq., Bitholme, Onchan, near Douglas.  
JOSEPH HIGGINS, Esq., Fervell-terrace, Peel.  
LESLIE LOCKHART, Esq., H.M. Customs, Peel.  
Capt. G. RUSSELL, 103, Albany-street, Regent's-park, London.  
JOHN MORRIS, Esq., Walsingham Lodge, Shrewsbury.  
(With power to add to their number.)

**MANAGING DIRECTOR.**  
Henry Johnson, Esq., Norfolk House, St. John's, Isle of Man.  
**BANKERS.**—The North and South Wales Bank, Liverpool.  
The National Provincial Bank of England, Shrewsbury.  
**SOLICITOR AND SECRETARY.**—C. Hicks, Esq., Shrewsbury.  
**REGISTERED OFFICE.**—MARKET CHAMBERS, SHREWSBURY.

## ABRIDGED PROSPECTUS.

This company has been established for the purpose of acquiring and working a most extensive and valuable mineral property, called the Glenfaba and Dalby Slate and Gold Mines, situated in the parish of Patrick, in the southern district of the Isle of Man. The property on which the quarries are opened consists of 6906 acres, nearly the whole of which is proved to be composed of slate rock, equal in quality to any produced from the best quarries in Wales.

This immense property, which it is believed is the largest slate sett in the kingdom, and likely to become one of the most valuable, is held under a lease from the Crown for the term of 21 years, at a reduced royalty of 1-16th, of which term 19½ years are unexpired.

A large sum of money has been spent in opening out and proving the value of their property, not only at the principal quarries at Glenfaba, but also on about 20 different parts of the sett, and "these trials have proved" (as stated in the report of Capt. John Francis, of Penryn, North Wales, under whose direction and advice these trials were made) "that almost the whole tract of 7000 acres is composed of slate-rock, and capable of being worked into ten different quarries opened upon it."

The machinery and plant are very valuable, consisting of water-wheels, sawing mills and cutting machines, tramways, dressing sheds, offices, smiths and carpenters' shops, machine house, and other buildings; and there are several cottages erected, with a dining room and other conveniences for the accommodation of the quarrymen.

The sett has been inspected by Capt. John Francis, as before stated, and by Mr. W. R. Williams, of Dolgelly, mining engineer, Capt. Thomas and Robert Williams, of Cooch-pur, Denbighshire, and several other practical men, all of whom speak thereof in the highest terms.

The colour of the slate is a fine dark blue, the grain close and compact, the texture good, the lamination fine and silky, and the cleavage very good and straight. There is also a very promising vein of green slate, which Capt. Francis recommends should be worked by driving a level into the rock, and if it turn out as well as anticipated will prove a very good green quarry.

In addition to the slate there are several veins or reefs of auriferous quartz traversing a portion of the sett, near to the Foxdale district, which it is believed will prove a valuable acquisition to the company. Portions of the quartz have been assayed by Messrs. Johnson and Sons, of London, Mr. Samson, of Liverpool, and other public assayers, with results varying from 1 oz. 2 dwts. 30 grs. to 8 dwts. of fine gold to the ton of quartz, and from the report of Mr. W. R. Williams there is every reason to expect most profitable results.

The quarries are about three miles from the shipping port of Peel, but when the projected railway from Douglas to Peel is completed they will be within a mile and a half of the intended station at Kirkpatrick, to connect them with which a loop-line will doubtless soon be formed.

Only £30,000 of the capital remains to be allotted. Specimens of the slate may be seen, and prospectuses and forms of application for shares obtained at the offices of Messrs. LITTLEDALE, RIDLEY, and BARNES, solicitors, Brown's-buildings, Liverpool, or at the registered office, where the original reports and map of the quarries may be inspected.

## FORM OF APPLICATION FOR SHARES.

To the Directors of the Isle of Man Slate Quarry and Gold Mining Company (Limited).  
Gentlemen,—Having paid to your bankers the sum of £1, I hereby request that you will allot me shares in the Isle of Man Slate Quarry and Gold Mining Company (Limited), and I hereby agree to accept such shares, or any smaller number that may be allotted to me; to pay the deposit, allotment, and calls thereon, and to become a member of the company; and I authorise you to place my name on the register of members for the shares which may be allotted to me.

I am, Gentlemen,  
Name in full.....  
Address in full.....  
Profession or business (if any).....  
Place of business (if any).....  
Date.....

## THE PANT DU AND WAENLAS MINING COMPANY (LIMITED).

Incorporated under the Companies Act of 1862, whereby the liability of each shareholder is limited to the amount of his shares.  
Capital £30,000, in 6000 shares of £5 each.  
Deposit on application, £1 per share; and £1 on allotment. An interval of not less than six months between each call.

**DIRECTORS.**  
THOMAS BARNES, Esq., M.P., The Quinta, near Chirk—CHAIRMAN.  
THOMAS PAINTER, Esq., Grove Park, Wrexham.  
JOHN THOMAS DAY, Esq., Smethwick Hall, Smethwick, Staffordshire.  
CHARLES HUGHES, Esq., Wrexham.  
ISAAC SHONE, Esq., Grove Park, Wrexham.  
(With power to add to their number.)  
**MANAGER.**—Mr. Thomas Williams, Cooch-pur, near Wrexham.  
**BANKERS.**—The National Provincial Bank of England, Wrexham.  
**SOLICITOR AND SECRETARY.**—C. Hicks, Esq., Shrewsbury.  
**REGISTERED OFFICE.**  
MARKET CHAMBERS, MARKET SQUARE, SHREWSBURY.

## PROSPECTUS.

This company is formed for the purpose of acquiring and working the celebrated Pant Du and Waenlas Lead Mines, in the parishes of Llanferris and Llanarmon, in the county of Denbigh, held under lease from the Marquis of Westminster, at the moderate dues of £1 per ton.

These two mines, which until recently have been held under separate leases, and worked by different proprietors, will now be united in one lease (newly granted for the term of 21 years) and carried on under one management, the effect of which will be very greatly to facilitate the development of both properties. A large tract of unworked ore ground, containing 70 acres, has also been added to Pant Du, which will very considerably augment the value of the sett.

By reference to the map of the Government Geological Survey for this district, it will appear that these mines are situated in the carboniferous limestone, resting on the clay-slate. The sett as a whole is very extensive, and estimated to contain about 500 acres, being in the heart of one of the richest lead districts in the kingdom, and lying between some of its most profitable mines—viz., the Maesyfaon on the north, and the West-minster and Belgrave Mines on the south, all of which have been greatly productive, and have yielded many hundreds of thousands of pounds to their fortunate owners. Maesyfaon Mine alone having yielded upwards of 15,000 tons of lead ore during the few years it was worked by its late proprietors, the Messrs. Lewis.

The western part only of Pant Du has been worked to any depth, the lowest level being about 70 fathoms from surface. The eastern portion is comparatively untouched. This mine is traversed by five strong and well-known lodes, running north-west and south-east, some of which form important junctions, all being intersected by a cross-course running nearly north-east and south-west. Four of these lodes carry their course through the Waenlas sett down to the River Allyn. From this stream was commenced, many years ago, a deep adit, level to drain Waenlas, but when this important work is brought up into Pant Du which could only be accomplished by uniting the two mines under one management it will unwater the whole of the mines, and lay open a large tract of rich bearing ground to the operations of the present company.

The deep adit has been driven about 1000 yards from the River Allyn, and when carried a short distance further will have a very considerable back or roof in the strong bearing masses of Waenlas and Pant Du. It will, therefore, be one of the main objects of the present company to prosecute the deep level on the Waenlas and other veins (all of which have been profitably worked to a shallow depth), until the best masses are intersected both in Waenlas and Pant Du.

At least £20,000 have already been spent in driving the adit levels and doing other necessary works at Waenlas. Several shafts have been sunk from the surface on the course of the deep adit, thoroughly ventilating the works. There is one pumping engine with 18-in. cylinder, and one good 30-in. pumping and winding engine at Pant Du, together with smiths' shop, commodious offices, and other buildings, and the shafts at both mines have been well timbered, and will require but a moderate outlay to put them in thorough repair.

The tramway-road from Denbigh to Mold passes close to the mines, and the River Allyn affords an unfailing stream of water for washing the ores.

The prospects of these mines must be considered as most encouraging, when it is known that the parallel lodes of Maesyfaon and Belgrave have borne very largely down to 150 and 200 fathoms respectively, whereas the lowest workings of Waenlas and Pant Du, on the runs of ore, are not more than 70 fms., and at this comparatively shallow depth they have made large returns.

Large deposits of ore are known to be left in the old workings of Pant Du, and can be let at once on tribute, so that immediate returns may be confidently anticipated. These mines have been inspected by Capt. Abalom Francis, of the Holway Mines, Flintshire, Walter Eddy, Esq., of Raabon, Capt. Wm. Clements, of the Westminster Mines, Capt. John Pryor, of Glas Allyn Mines, near Mold, and other eminent mining engineers, who unanimously agree as to their great value, and recommend that operations be carried on with vigour. The value of the mines is further confirmed by the fact that from one small spot alone in Pant Du upwards of 1000 tons of ore were raised in less than three years.

The whole of these valuable mines, including plant, buildings, and machinery, have been agreed to be purchased and transferred to the company for 7962½. 10s. in cash, and 1450 fully paid-up shares.

Applications for shares, accompanied with deposit (which will be returned to the applicant in the event of no allotment), may be made to the bankers, or to the secretary, at the offices of the company, where prospectuses and forms of application for shares may be obtained, and specimens of the ore, the original reports, and plans and sections of the mines, may be inspected.

## MINING OFFICES, MANCHESTER.

**Messrs. HARVEY AND CO., MINING ENGINEERS,**  
AGENTS, AND SHAREDEALERS, CLARENCE CHAMBERS, MANCHESTER, are at all times in a position to deal in all the market Dividend and Pro-spective Mine shares, and also to advise on all mining matters, being practically acquainted with the business, and having a daily communication from the mining districts of Devon and Cornwall.

Messrs. HARVEY and Co. publish a monthly "Mining Circular," containing a valuable summary of mining information. Forwarded gratis on application. The Circular for June contains special reports on Wheal Curda, Nantlle, Grambler and St. Anby.

## SWANSEA COPPER ORE WHARVES.

TO IMPORTERS OF FOREIGN COPPER, LEAD, AND CALAMINE ORE.

Swansea, July 1, 1864.  
GENTLEMEN.—We beg to inform you that, in consequence of the retirement of Messrs. W. and J. M. Williams from the copper ore trade, which they have carried on here for so many years past, we have resolved to enter upon that business, and for which purpose we have secured most eligible wharves, on the west side of the North Float, where vessels drawing 30 ft. of water can get alongside at all times. These wharves are now covered in, the floors being made of concrete to prevent waste of the ore. A powerful steam crusher has lately been erected on the premises, and is now in working order.

The business we purpose carrying on is that of COPPER ORE WHARFINGERS, combined with metal and other general agencies, which will be managed by our Mr. Thomas Elford, who for 20 years has filled an important situation under Messrs. Williams, Foster, and Co., and for the last eight years has had the entire management of their large copper smelting works, and copper and metal rolling mills, in this locality, as well as the copper ore business of Messrs. W. and J. M. Williams, which we trust will be a sufficient guarantee to our friends that any business they may entrust to our care will be conducted with the most scrupulous attention to secure the best results for their interests.

In consequence of the large number of very extensive Copper smelting works concentrated in this immediate locality, this market affords greater competition for ore than perhaps any other in the world, there being now no less than sixteen distinct Companies competing for ore sold at the public ticketing, every two or three weeks. There is also a good demand for lead and zinc, or calamine ore, several large lead and spelter works having been established in this district for some time past, and new ones are in course of erection.

Soliciting a share of your consignments of ore, regulus, and slab copper to this port, as well as a share of any general business you may have to transact in this quarter, We remain, Gentlemen, your obedient servants,

ELFORD, WILLIAMS, AND CO.  
WILLIAMS, HARVEY, AND CO., London and Liverpool; the Glamorganhire Banking Company, Swansea; Messrs. Alex. Bell and Sons, No. 8, Finch-lane, London; Messrs. Armand de Lacombe, Madrid.

## NEW EDITION OF MR. FAIRBAIRN'S WORK ON IRON.

In 1 vol., 8vo., with 6 plates and 118 woodcuts, price 16s.

## THE APPLICATION OF CAST AND WROUGHT IRON TO BUILDING PURPOSES.

By W. FAIRBAIRN, C.E., F.R.S., &c.

Third edition, greatly enlarged, including a short Treatise on Wrought-Iron Bridges.

Also by Mr. FAIRBAIRN, in 2 vols., 8vo., price 16s. each.

TREATISE ON MILLS AND MILLWORK (Vol. 1, new edition).

USEFUL INFORMATION FOR ENGINEERS, 2 vols., 10s. 6d. each.

London: Longman, Green, and Co., Paternoster-row.

Now ready, price 2s. 6d., by post 32 penny stamps.

**MR. HOPTON'S NEW WORK**, entitled CONVERSATIONS ON MINES, &c., BETWEEN "A FATHER AND SON." Thirteen plans on ventilation and working out coal, dialling, planning, and taking the dip and rise of the mine illustrated.

Near 900 copies are ordered in Wigan alone. Address Mr. J. J. CAMPBELL, Cropper's-hill, St. Helen's; or the author, 73, Peter-street, St. Helen's.

## HISTORY OF THE RISE AND PROGRESS OF MINING IN DEVONSHIRE.

From the time of the Phœnicians to the present.

By G. CHOWN.

London: Published at the MINING JOURNAL office, 26, Fleet-street, E.C.

Plates, 8vo., cloth, price 10s. 6d., by post 11s.

## THE MINERS' MANUAL OF ARITHMETIC AND SURVEYING.

By WILLIAM RICKARD,

Teacher of Practical Mining in the late Mining School of Cornwall, and Principal of the Engineering Academy, 36, Upper Parliament-street, Liverpool.

Truro: Heard and Son.—London: Longman and Co.; the office of the MINING JOURNAL, 26, Fleet-street; and of the author, and of all booksellers.

## Notices to Correspondents.

\* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journals should be regularly read on receipt: it then forms an accumulating useful work of reference.

USE OF KAOLIN IN IRONFOUNDRIES.—Can any of your readers inform me whether kaolin is used instead of sand in foundries, and if so, what precautions are necessary?—Moulden.

COAL CUTTING BY MACHINERY.—The correspondence in the Journal of late has only just met my eye, and I fully agree with what Mr. Ridley has written. I distinctly deny what the West Ardsley Company say, that I have abandoned the trunk principle in my last patent.—J. GRIFFITH JONES: Blaina Ironworks.

WEATHER PREDICTIONS.—In Mr. George Shepherd's last letter to you on the subject of the weather, he alludes to the abuse he has recently met with on account of the failure of his predictions. Although abuse is not to be commended at any time, it does not appear to me very surprising that Mr. Shepherd should have received sharp communications from persons who may have suffered by their reliance on the too confident predictions of the author of the "Climate of England." The study of the phenomena of Nature, and the application of the results obtained to the benefit of mankind, are worthy of all praise: but the true philosopher states his opinions with diffidence. Mr. Shepherd has lost ground by his most positive predictions that 1864 would be a year of great disaster; a wet spring; a wet summer; so that his readers were made very uncomfortable, and, as it has turned out, very needlessly so. With singular boldness, he stated that he would have the first information of any change. His attempts to show that he was right in many of his more ordinary failures are extremely weak. In short, like many other wise men, he is baffled by our English climate. Will he permit me to say to him for the future—"Do not be too positive."—J. P.: Yorkshire.

HALLENBERG.—Allow me to correct an error in the City Article of last week's Journal: in referring to this mine it is stated that it was known to the writer when worked about 20 years since. The mine to which the allusion is made is now working under the name of Bocawen Mine. I believe no one living knows when the present Hallenberg worked last; it must have been wrought as part of Wheal Rose more than 70 years since, at the time copper was not so much sought after as at the present day. The mine adjoins Wheal Rose, and the same courses of ore going east are the lodes which Hallenberg are now raising their ores from.—Truth: Liskeard, Aug. 31.

CRUISER VALLEY AND PORT MADOC SLATE COMPANY.—I am a shareholder in this company, and should feel greatly obliged if the secretary would give the shareholders, through the medium of the Journal, some idea of the position in which we stand. Several weeks since it was stated somewhat conspicuously in a contemporary that the directors of the company, accompanied by a few shareholders, were to visit the works during the following week. I presume the directors thought it advisable to keep to themselves the result of their visit, as I am not aware that anything came of it. I see by last week's Journal that (in answer to a previous enquiry) the secretary has kindly offered to give any information privately, but I believe it would be more thankfully received if given as I suggest.—AN OLD SUBSCRIBER: Southampton.

THE CRUISER VALLEY AND PORT MADOC SLATE COMPANY.—If "Subscriber," who enquired under date Aug. 20, will write per post to "Quarry Agent," Ensworth, Hants, he may learn what is doing at this sett, from a personal inspection made Aug. 18.

METALLURGY.—"J. V. P." (Truro).—Dr. Percy's work is not completed, but each volume is complete in itself as to the metals treated of. The volumes already published include Fuel, Fire-clay, Copper, Zinc, Brass, and Iron and Steel. The metallurgy of the other metals will be given in the third volume. Vols. I. and II. are 11s. 6d. and 21s. 2s. respectively. The best treatises on the metallurgy of the metals, not given by Dr. Percy, are in Ure's Dictionary of Arts, Manufactures, and Mines, price about 31s. 3s. Phillips's "Metallurgy" (12s. 6d.) is a very good work.

## THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, SEPTEMBER 3, 1864.

The Board of Trade again furnishes the usual statistical returns with respect to the exports and imports of the United Kingdom, and which are now made up for the month, and the seven months, ending July 31. They continue to show an increasing expansion of the trade and commerce of the country in almost every class of British industry, for although in some particular items in the respective branches there is a falling off, the balance of each gives an excess over last year. The exports of articles the produce and manufacture of Great Britain are declared to be in value 92,441,950l. for the seven months, and 14,394,364l. for the single month, which compared with the same periods of last year give an increase of 16,778,913l. for the first, and 745,524l. for the latter; the respective aggregates being 75,663,037l. and 13,648,840l. The excess of 1864 over the seven months of 1863 is 22,995,470l.

In this grand total of 92,441,950l., the declared value of the exports, mining industry represents 19,016,927l., which is the usual average of about one-fifth of the whole, no small sum, we consider, although there are still to be found such benighted persons that mining in their minds is a delusion and a snare. The total excess over the corresponding months of 1863 is 1,435,158l., after allowing for deductions in copper, brass, and lead, amounting collectively to 488,578l. The amount for the seven months of last year was 17,581,769l. In iron there is an increase of 918,086l.; in hardware and cutlery, 345,426l.; in machinery, 236,416l.; in coals and culm, 222,021l.; in tin, unwrought and plate, 97,130l.; in steel, 82,691l.; and in zinc, 22,017l.

In the trade in bullion and specie we have still a balance in our favour. The imports for the seven months are declared at 16,371,678l., against 14,781,858l. exports, leaving, consequently, 1,589,820l. to the good. Of the former, 6,940,959l. were from Mexico and South America, against

171,904l.; 4,849,055l. from the United States, against 185,358l.; 1,913,427l. from Australia, against 8385l.; 807,422l. from Belgium, against 205,831l.; 409,619l. from the Hansa Towns, against 140,628l.; 80,548l. from British North America, against 76,984l.; 56,557l. from Portugal, against 1219l.; 18378l. from Gibraltar, against 2511l.; and 67,219l. from the West Coast of Africa, against 51,671l. British Columbia gave us 12,053l., without any return of the same kind, and Russia 17,674l. on similar terms. On the other hand, we exported to France 5,948,510l., and received 888,911l.; to Egypt, 5,171,019l., against 33,535l.; to Spain, 1,276,942l., against 13,723l.; to Brazil, 988,552l., against 59,493l.; to Holland, 210,752l., against 134,876l.; to Malta, 110,482l., against 292l.; to British South Africa, 111,081l., against 4710l.; to Turkey, 144l., against 128l.; and to "other countries," 119,885l., against 63,099l. The exports consisted of 9,111,893l. in gold, and 5,669,965l. in silver; and the imports were 10,297,075l. in gold, and 6,074,603l. in silver.

The number of vessels engaged in the general export trade during the seven months was 26,687, of the collective burden of 6,898,614 tons, of which 3400 vessels were dispatched to British possessions, and 23,287 to foreign countries.

## THE LONDON RAILWAY COAL TRADE.

Yesterday, several of the principal railway coal merchants in London attended by invitation to inspect the new coal depot, constructed by the London and Blackwall Railway Company, near the junction of Royal Mint-street with Leman-street, in the City. The depot has been built by Mr. W. Tite, M.P., the engineer of the railway, on Pimms's principle; and as it seems to be a very considerable improvement on any yet constructed, and is besides the model on which some new depots at King's-cross and elsewhere are shortly to be constructed, a brief description of its principal features will be interesting to such of our readers as are connected in any way with the coal trade. In the first place, then, the whole of each day's delivery of coal from the depot is taken directly from the railway trucks, which are standing in the depot loaded, thus causing much less detention of the railway wagons than when the day's delivery is taken from the bays, which are afterwards filled up from the railway wagons during the evening and night. Next, the bays are constructed to contain not less than 300 tons each (instead of 40, as at King's-cross), and into these every evening such coal as may remain unsold in the railway wagons is deposited gently, so as to avoid breakage; not, by the necessity for its being first sold next day, to detain the newly-arrived trucks, but to remain in reserve until from some cause or other the supply of that particular kind of coal might be interrupted for a day or so, or the day's supply prove less than the sales of the day required.

The possession of such a reserve has long been urgently required for railway coal, as, being without a particular description of coal even for a single day is often productive of serious inconvenience and loss of business to the owner or merchant; it not only loses him the dealers or, as it is called, "fetched" trade for that day, but diminishes that of the first day or two after the supply is resumed until, indeed, the fact of a further supply becomes advised to the dealers. The greatest advantage, however, of the new plan is that it entirely does away with the great breakage the coal is subject to by the existing mode of unloading it, a breakage so great that whilst it greatly reduces the size of the coal which is delivered to the public, has also this effect—that its subsequent screening takes no less than 7, 8, and, in some cases, 11 per cent. out of it as small coal, which very seldom sells for more than the cost of carriage, and sometimes for even less.

The *modus operandi* is as follows:—The trucks are pushed up to a scotch, and there a nicely-balanced hopper rises from below and encloses the bottom of the truck; this hopper debouches between the front and hind wheels over the rail, and so, without any concussion or smash whatever, gradually conducts the coal to the top of the screen leading to the scales, the angle of descent being just sufficient to impart motion to the coal.

The coal merchant will by this means be enabled to deliver the coal to his customers as large and round as when it leaves the colliery, and himself be saved the loss of having 6 tons in every 100 made into small coal, the small coal produced by the new mode not being more than from 2 to 2½ per cent., instead of from 7 to 9.

A minor feature of the new method is, that the kind of screen is adapted carefully to the kind of coal; the longitudinal iron-bar, while doing very well for Wallsend, and other coals having a conchoidal fracture, being quite unsuited to the laminated, rhomboidal, and rectangular—of the latter kinds many pieces, shaped like dominoes or card-cases, would slip between parallel bars edgewise—for these descriptions screen-plates, having circular holes, are employed, and for others squares, hexagons, and diamonds, the fitness of each being carefully adjusted to the kind of coal.

It is claimed that a saving of labour will be secured also; this is open to great doubt, but it is certainly clear that an enormous saving of breakage is effected, which will be an advantage to the consumer, and a great saving to the merchant.

Much anxiety was expressed that the new depot at King's-cross should be proceeded with at once, so that in part at least it might be available for the coming winter's traffic. One thing is certain, if the trade can grow and thrive under the incubus of the present method, *a fortiori*, it will grow still faster if relieved from it, and (by more quickly liberating the trucks at this end) would also, to a large extent, provide the rolling stock necessary to its accommodation.

## REPORT FROM NORTHUMBERLAND AND DURHAM.

SEPT. 1.—We have no change of importance to notice in the position of the Coal and other trades here, most of which continue to flourish exceedingly. The long drought has at length been succeeded by copious and most welcome rains, for many parts of the rural and colliery districts of Durham and Northumberland have suffered severely from the want of rain; although, as steam-power is nearly universal, and water-power almost nil, little inconvenience has been felt in the carrying on the various works. The large coal district on the Tyne Valley, inundated by the High Main water, still remains in a very unprofitable and discouraging position: as is well known, it has been in that state now for several years, and various schemes have been proposed for its drainage. It is evident that the coal so locked up becomes every year more valuable, as the demand for it on the very spot is constantly on the increase. The subject has again of late occupied the attention of various parties interested in the coal, and also generally in the trade of the Tyne, and although matters are scarcely yet matured, it is confidently believed that a movement will shortly be made in this very important matter. The "limited liability" system, now so generally applied in the working of companies, will, no doubt, ultimately be applied in this case, and there is little doubt that it would become a most profitable investment of capital—that is, the necessary machinery for pumping the water would become highly productive, presuming that the owners of the various collieries should enter into an arrangement binding them to pay a sum equivalent to the value of each colliery opened by the removal of the water. It is considered that three pumping stations would be sufficient to drain the whole of the works, and when this is accomplished five large and most valuable collieries would be opened. It must also be considered that a sufficient number of working shafts are already sunk at all those works, the removal of the water being all that is required to open out an immense quantity of coal of various qualities, from the very best Wallsend to the poorer sorts of manufactory coal. Coal-Cutting Machines continue to attract much attention here, and we have heard of one coalowner in the district who has lately ordered several of these machines, and they are shortly to be introduced by him for the working of the hard coal seams in his collieries. We will give more particulars concerning these machines shortly.

A most important and interesting event occurred this week at the rising and important iron manufacturing town of Jarrow, on the Tyne—the opening of a Mechanics' Institute, &c., which was celebrated with great éclat on Monday. The building, which comprises reading-rooms, concert-rooms, coffee-room, baths, &c., is on a most extensive scale, and may well serve as a pattern to other manufacturing towns. Its founders have aimed at providing the means of instruction and advancement in knowledge of the members, and also, what is most important, the means of amusement and recreation. The total cost of the building will be about 2000l., the men of Jarrow having subscribed most liberally towards it, while the tradesmen and ironmasters have also contributed largely. Messrs. Palmer, the largest ironmaster on the Tyne, will, it appears, contribute altogether about 1000l., in order to free the establishment from debt.

We noticed some time ago that the limited liability principle was to be applied to the working of one of the largest ironworks in Gateshead, the concern alluded to being the firm carried on by John Abbott and Co. The change has lately been carried out in a very quiet manner, advertisements not being necessary for the sale of this concern. There was a very keen competition for the shares, which are already at a premium. It is understood that the profits earned during the past five years have averaged 50,000l. per annum, and it is confidently expected from 15 to 20 per cent. profits will be realised by the new company. Most of the other limited companies lately launched are doing well. The Consol Company are



making large profits. Other companies, with various objects in view, are talked of—the most important one being the gigantic company, with a capital of 25 millions, who have already concluded a contract for the purchase of the extensive coal and iron works now carried on by Bolckow and Vaughan, at Middlesbrough and other places. As is well known, the situation of these works is unrivalled, as the Cleveland iron ore can be procured and put into these works at a cheaper rate than any other work in the district, or, perhaps, in this country, and the company have also abundant supplies of coal, coke, &c., within a reasonable distance; indeed, they produce most of the materials required at their own works, and of course very large profits have been realised. The prospects of the new company are, therefore, all that could be wished.

"Elfin," the intelligent correspondent of the *Newcastle Daily Chronicle*, says:—The probability of some of the large Tees-side ironworks being formed into a limited liability company has long been foreseen. For several months it has been the talk in commercial circles that Messrs. Bolckow and Vaughan's works would be the first to undergo this transformation. Negotiations, it is understood, have been going on for some time past, with the view of getting their large concerns converted into a company, and it appears that the sale has been effected. Messrs. Chadwick, Adamson, McKenna, and Co., the well-known financial agents of Manchester and London, have completed the purchase. A deposit of 20,000l. has been paid, and a further sum of 230,000l. has to be paid in January, when the works are to be handed over to the new company. The entire establishment is to be sold, including both the ironworks and coal mines at Middlesbrough, Easton, Witley Park, and Auckland. The total sum to be paid for the whole is 1,500,000l. The capital of the new company is to be two and a half millions sterling, made up in 25,000 shares, of 100l. each. Messrs. Bolckow and Vaughan are to take 8000l. shares, and to pay up 50l. per share. They further agree that no dividend shall be paid upon these 8000 shares until an average dividend of 10 per cent. per annum for five years has been paid to all the other shareholders. The directors are to be chiefly Manchester men, and among them will be Mr. J. Cheetham, formerly M.P. for South Lancashire, Mr. B. Whitworth, Mr. Fox, Mr. Holden, and Mr. George Wood, all well-known business men in Lancashire. Three-fourths of the capital required is already taken, and the promoters entertain no doubt but that they will be able to place the balance with ease and promptitude. Mr. Bolckow has no children, and Mr. Vaughan has only one son. It has been well known for some time that both gentlemen were anxious to be freed from the responsibility necessarily incident to so vast a concern. There are said to be upwards of 9000 persons employed in connection with their different works. What a change in a few years! I can recollect when Mr. Vaughan was manager for Messrs. Losh, Wilson, and Bell, at Walker, and Mr. Bolckow was a clerk in a quayside office. This was the capital more than twenty years ago. Now, they are the owners of the largest ironworks in the North of England. Fortune has certainly smiled on both of them, in a monetary point of view, at least.

The limited liability companies that have been started in this district have so far been successful. How far they will continue to be so remains to be seen. Much will depend upon their management, and the parties that are at the head of them. If there are men who take a direct personal interest in managing them they may, and probably will, continue to be successful; if not, not. The Consett Tinworks, which were formerly in the possession of Messrs. J. B. Richardson and Co., have made a profit of 120 per cent. upon the first year's work. The company pays Mr. Richardson 5 per cent. on the capital sum in plan, &c., for the rent of the premises. The working capital of the company is 10,000l., and the profits for the last year amounted to no less than 12,000l. The Consett Iron Company have a nominal capital of 300,000l., and the profits for the first half-year are said to have reached no less than 40,000l. For the shares of the company formed out of Messrs. J. Abbot and Co.'s works already a premium of 25l. is said to have been offered. The Tyne Ship-Building Company (late Messrs. J. Rogers and Co.) have got a capital business to start with. The company has on the stocks, and is preparing to put down, eleven steamers, large and small. One steamer has been launched since the company came into possession of the works. Mr. James Spence, the chief S. of the Tyne, and once the owner of the Bellington Ironworks, is the chairman of the directors of this company. Mr. Spence is a first-class man of business, and under his direction the new Ship-Building Company will no doubt prosper. The Tyne Steam-Ship Company, I hear, is doing very well, and likely to do better when the new arrangements the directors are making get into full working order. The Tyne General Ferry Company also prospers.

Altogether, the application of the limited liability principle in this district may be considered so far to be successful. But it may be carried too far. As an illustration of the character of some of the wild schemes that are talked of in this direction, I may mention that there was a project seriously mooted for purchasing all the Northumberland and all the Welsh steam coal collieries, and forming them all into one huge limited liability company.

The old and well-known colliery and ironworks at Wylam are announced to be sold or let. The property belongs, and has done for many years, to the Blackett family. Messrs. Bell Brothers have rented the blast-furnaces for some time, and when their lease is out the entire concern is to be put up for sale. Wylam coals have a first-class reputation, and with a certain class of manufacturers in London and elsewhere they are preferred to any other Tyneside coal. The colliery is an old one, but there is still a great deal of coal left unworked. I have heard a limited liability company talked about for taking the entire concern. There is an abundance of fire-clay in the mine.

#### REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

SEPT. 1.—The demand for manufactured iron continues steadily to improve, and a good many ironmasters have orders on hand for a month to come, a state of things which has not previously existed for some months past. The market is much firmer, and buyers complain of the excess of orders being delayed. This, however, may be somewhat remedied, as the decreasing temperature enables the puddlers to do more work. Pig-iron is selling more freely. The prevailing rate for good all-mine pigs and hematites is 3l. 10s., best brands being 3l. 12s. 6d.

The strike of miners in the Dudley district has this week entered on a new phase. It was gradually dwindling away, and bade fair to be over in a few weeks. Those, however, interested in maintaining it took counsel together, formed large processions early in the morning, with bands, whistles, &c., and paraded the district, exercising a very intimidating influence, so that many who had gone to work left, and say they dare not continue. In this way, and by the termination of notices given a fortnight ago, the ranks of the men on strike have been swelled greatly, whilst their demonstrations are exercising no small influence on those at work. There are now, probably, not less than four or five thousand men out. The police have been augmented, but so far the acts of violence have been isolated. At the Dudley Petty Sessions, on Monday, one man was sentenced to three months, and another to six weeks imprisonment for threatening and ill-treating men who were going to work. In published list of subscriptions in aid of those on strike, the names of men who have refused to subscribe are given, evidently with a view to their becoming "marked."

On Saturday a crowd of the men met Mr. F. Smith, the Editor of the *Dudley's* chief agent, driving in his carriage, and asked him to speak to them respecting the strike, and he did so at some length. The great point of Mr. Smith's address consisted of a refutation of the leading argument adduced by the colliers, which is that the wages before the reduction were only the same as were paid when coal was cheaper than at present, and they referred to the year 1848 in proof, stating that in that year wages were 5s. per day, and thick coal as low as 8s. per ton, whilst that quality of coal is now 11s. Mr. Smith, however, reminded them that whilst at the commencement of 1848 wages were 5s. per day, at the end of the year they fell to 3s. 6d., and that when 5s. was paid for wages coal was 10s., but that it fell to 8s., when wages were at the lowest point in the course of that year. He added that from the fact that the mines had been so extensively worked in the first instance, leaving only ribs and pillars for the present workings, the cost was greatly increased in proportion to the yield, whilst the greater proportion of small coal diminished the actual value of the whole quantity raised, even though the prices were as high, or higher. The men gave three cheers for Mr. Smith, but as yet have not acted on the sensible observations he made. The result of the strike is that vast quantities of coal are coming from other districts, and the demand is so active at the thin coal mines of South Staffordshire that several of the ironmasters are raising their prices 1s. per ton. The men on strike are only receiving very small amounts weekly, and as the area extends the claimants are increased, whilst the contributors diminish. Under these circumstances, nothing but a decided advance in the price of iron is likely to restore wages to the old level.

An important decision was given in the Birmingham Bankruptcy Court, on Monday, in the case of E. Barker and Son, metal dealers. At the time of their failure they had contracted for, but not received, large quantities of copper, iron, &c., at prices far above those now current, and the question was whether the estate was liable to the sellers for the depreciation in value. Messrs. H. and J. Waldeck claimed, as creditors, for nearly 10,000l., on account of iron they had bought on the Glasgow market for the bankrupts, and for which they were responsible, and which the assignees refused to take. It was re-sold at a loss of 9476l. The registrar, Mr. Hill, said the claim for Messrs. Waldeck's debt being recognised rested on the 178th section of the Bankruptcy Act of 1849, which provides that if any bankrupt has contracted before the filing of his petition for adjudication a liability to pay money on a contingency which has not happened, and the demand in respect whereof has not been ascertained before the filing of the petition, when the demand has been ascertained he shall be admitted to prove for such demand; but it had been held by the superior courts that under this section no proof could be made except for an ascertained sum, not for unliquidated damages, and also that the liability to be proved must depend on a single contingency only, and not on a plurality or series of contingencies. He held that the present claim fulfilled these conditions, as immediately on each purchase the claimants became liable to pay to the seller the whole amount of the purchase-money thereof, which was an ascertained sum, and depending on the single contingency that the bankrupts did not pay the sellers that amount. He, therefore, admitted the proof of the debt. The solicitor to the assignees said his Honour's decision would be appealed against.

#### REPORT FROM DERBYSHIRE, YORKSHIRE, AND LANCASHIRE.

SEPT. 1.—The Coal Trade appears to be in a state of far greater activity than has been experienced for a very considerable period. The demand for the London market is exceedingly active, and a very satisfactory amount of business is doing in connection with the local trade. The enquiry for all descriptions of manufactured iron is all that could be desired, and from present appearances there is no probability of the demand diminishing. The Low Moor Works, at Bowling, and the other districts belonging to the same company, having been formed into a joint-stock concern, nearly the whole of the share capital, 2,500,000l., has been subscribed, and the principal men in the company are the same gentlemen who have the management of the Staveley Coal and Iron Works, the Atlas Armour-Plate Works, and other large concerns in the iron and coal trades. In these counties the joint-stock system appears to be entirely superseding individual enterprise.

The "lock-out" at Bowling has terminated in a manner which may fairly be regarded as a triumph of the masters. The full complement of men required has been obtained, and already 200 puddling furnaces are in full work night and day, whilst the necessary number of hands for the remaining four have been secured. Belgium, and these will enter upon their engagements in the course of a few days. As soon as the facility with which hands were obtained became known to the men, many applications were made by those locked out, who expressed their willingness to sign the declaration. As the whole of the places for which men were required had, however, been filled up, they did not succeed in obtaining employment. At Low Moor the masters have not been quite so successful in procuring men; they have, nevertheless, a dozen puddling furnaces in full work; and, as the unoccupied places are being gradually filled up, they have no fear that they will soon resume their usual activity, without the aid of Unionists.

A case of some importance to both colliery proprietors and colliers was heard before the Barnsley magistrates, yesterday, inasmuch as it proves that a collier cannot infringe upon colliery rules with impunity, although there may be some slight want of form in bringing him to justice. The defendants were James Jackson and Thomas Steele. The defence was that the information was informal, being laid by the colliery manager instead of by Earl Fitzwilliam's steward, and that the rules themselves did not demand a month's notice, though there might have been a verbal agreement to that effect. The decision was given against the colliers. A colliery accident, happily not attended with loss of life, occurred on Tuesday morning at High Park Colliery, near Eastwood, Nottingham. The fire-damp, which had just been discovered in the pit, became ignited, and although every exertion was made to rescue the men several were severely burned. The coroner's jury found a verdict of "Accidental Death" in the case of the youth Thomas Jones, who was killed by the kick of a pony in the Butterley Company's coal pit at Ripley.

The Cleveland district still continues to attract the attention of both speculators and capitalists, and although it is admitted that for the moment the increased production is fully compensated for by the continually rising demand, it is generally considered that Messrs. Bolckow and Vaughan have shown much wisdom and foresight by concluding the sale of their works, if they can realise the 1,500,000l. clear, to reimburse them for their outlay, and the discoveries which have been made under their auspices. There are at present 59 blast-furnaces in working order in the district; and, assuming that the increase in the number continues at the rate it has recently, it is not unreasonable to anticipate that by the end of 1865 there will be at least 200 furnaces in blast—there being just now what may almost be termed a Cleveland ironworking mania—if the usual reaction do not follow, so much the better. Eight additional blast-furnaces have been got into working order within the past two months, and nearly thirty more are in process of erection. As scarcely one-half of the pig-iron which is now produced in Cleveland is converted into merchant iron in the district, it is difficult to conceive what it is that justifies this rapid increase in the number of furnaces. Even at present the Cleveland prices are much lower than those of Glasgow, and certainly the doubling of the number of furnaces in blast is not the method usually resorted to for sustaining the export trade. It is true a large trade is usually done with the Continent, but at present the export trade is very languid, and it is only on the probability of the reduction of the French duty on pig-iron in October increasing the demand in France that the manufacturers build their hopes. It is mentioned that the buying-up process has been carried on to such an extent that even the makes of furnaces not yet in blast have been bespoken to the end of 1865, but it should be considered that the establishment of the new Exchange has afforded additional facilities for forcing up prices, and that when there is a ready market for the *bona fide* character of quotations (that is, the correspondence of quotations with the prices justified by the real demand) is not so readily ascertained.

Your correspondent, Mr. Ennor, will, no doubt, be interested to learn that as J. Elliott, a miner at the Ravenhead Collieries, St. Helen's, was following his usual employment getting Cannel, he struck off from a large mass a remarkable piece about 9 in. square. He states that he turned round to make a remark about the piece of coal to a comrade who was working near him, and at the same time struck the lump with his pick, when, to his surprise, it entered freely into the coal as if it were hollow. Thinking this very strange, he states that he took the Cannel with him when he ascended out of the pit, and on examining it he found firmly embedded in a hole just large enough for it to move in, but not sufficiently large to turn round, a live toad, which seemed quite lively and healthy. The hole, which is about 4 in. deep, is exceedingly narrow at the mouth, so much so that it would be impossible to get the toad out. Crowds of people have flocked round Elliott's house to see this strange sight, and a gentleman of St. Helen's has offered him ten guineas for it.

#### REPORT FROM MONMOUTH AND SOUTH WALES.

SEPT. 1.—It is satisfactory to report that the dulness which characterised the Iron Trade a few weeks ago is being gradually replaced by more activity, so far as demand is concerned. The market shows a decided change in favour of sellers, and, as stated last week, some of the first-class makers are able to command a slight rise in price. For tin-plates there is also a better enquiry, consequent in a great measure on the decrease in the make through the scarcity of water. The heavy rain which has fallen at intervals since Monday night will enable all the works that were obliged to stop from want of water to commence operations again, and hundreds of hands will thus be able to resume their daily avocations. In both the house and steam Coal Trades there is a large business doing, and quotations are well maintained. The negotiations for the purchase of the Nant-y-glo and Beaufort Works have not yet been brought to a termination, but there is no doubt entertained that both establishments will shortly pass from the hands of Messrs. J. and C. Bailey. Reports have been circulated that the directors of the London and North-Western Railway Company are anxious to purchase Nant-y-glo, but there appears to be no foundation for this rumour. Mr. Crawshaw Bailey, M.P., who has always had the credit of not being mixed up in any way with the truck system, seems, after all, to have a sort of indirect interest in a shop. At the last Tredegar County Court, Mr. Williams, the late proprietor of the Beaufort shop, brought an action against two workmen for the recovery of sums of money for goods supplied. It appeared from the evidence that the proprietor of the shop acted as cashier to Mr. Bailey, and that in many instances a few shillings per month were deducted from the wages of the men to pay the shop account; 3000l. per annum was paid to Mr. Bailey as the "rent" for the shop. The defendants had agreed that a certain sum per month should be deducted from their wages, but Mr. Simon, who appeared for them, contended that this brought the cases within the Truck Act, and that the "deductions" made were illegal. He, therefore, held that the plaintiff was out of Court, the debts having been contracted more than six years ago. Mr. C. Bailey, M.P., and Mr. Phillip Williams, had been summoned to attend and give evidence, but they were unable to be present, and the cases were in consequence adjourned for a month, in order to secure the attendance of these gentlemen.

The half-yearly meetings of the local railway companies are being held one after the other, and in nearly every instance there is an increase of dividends. On Thursday the ordinary meeting of the Pembroke and Tenby Railway was held, Mr. W. Owen in the chair. The Penarth Harbour, Dock, and Railway Company half-yearly meeting was held on Tuesday, and a dividend at the rate of 5 per cent. was declared on the preference shares, and at the rate of 3 1/2 per cent. on the ordinary capital. The whole undertaking will shortly be in the hands of the Taff Vale, at a rental of 4 1/2 per cent. per annum on the ordinary capital. The Swansea Vale meeting was held on Tuesday, when a satisfactory report was presented and adopted. On Wednesday the Merthyr, Tredegar, and Abergevy meeting was held, when a dividend at the rate of 5 per cent. per annum, less 10 per cent., was declared for the half-year.

Referring to the Aberaman Ironworks, a correspondent of the *Times* says—"In the advertisement headed 'Aberaman Ironworks' is a blunder so extraordinary that it might be regarded as a slip of the pen if it had not been constantly repeated. Thus, it is announced that 'the ironstone is the blackband, a carbonaceous ore, which is comparatively rare, and yields from 60 to 70 per cent. of iron, and also the ordinary argillaceous ironstone.' Now, blackband is impure carbonate of protoxide of iron, and the absolute pure carbonate contains only 48 1/2 per cent. of iron. The richest ore in the world is the magnetite, and that, even if chemically pure—a state in which it never occurs—could only contain 72 1/2 per cent. of iron. The blunder in question could not escape detection by persons acquainted with the smelting of iron, though it might mislead the general public."

MINING IN CARMARTHENSHIRE AND PEMBROKESHIRE.—The letters which have appeared from time to time in the *Mining Journal*, in reference to the mining sets of Carmarthenshire and Pembrokeshire, have attracted a great deal of attention in the district, and there is no doubt entertained by old miners in the locality that there is a vast field for mining enterprise in the two counties. Want of railway communication is the great drawback at present, but this will not continue long, as capitalists are beginning to see that South Wales, and more especially the westernmost counties, are destined to meet with a prosperous future, once the unequalled natural advantages of Milford are turned into practical account. It must be admitted that the landowners, as a body, do not give that encouragement to mining adventure which it is unquestionably their interest to do; time, however, will, no doubt, remove this difficulty, and convince the proprietors of the soil that they are pursuing a wrong policy. The following letter has appeared in the *Pembrokeshire Telegraph*, in reference to the strata of the Preseli range of mountains, which divide Cardiganshire and Pembrokeshire:—"Having noticed in last week's *Telegraph* a copy of a letter, addressed to the *Mining Journal*, on 'Mining in Pembrokeshire,' stating the nature of the strata of the Preseli range, and the neighbourhood of Newport pregnant with metallic ore. It affords me great pleasure in making known to you, and those interested in geology, that no doubt any longer exists upon that point. A short time ago the labourers at Trenewn, near this town, in digging a wheel-pit for some machinery connected with the farm, threw up a quantity of soft gravelly soil (a portion of which I enclose for your inspection), full of small yellow granulations, which, on being shown to an old Australian miner, was pronounced to be mica, the precursor of the coveted ore. After several days' digging the water prevented further operations until proper machinery was obtained."

SWANSEA.—Trade during the past week has been unusually brisk, as the large number of imports will show. Mr. Barnes, engineer, I am told, is making active preparation for the commencement of the new line from Swansea to the Mumbles Head, at which latter point a jetty is to be constructed, so that all descriptions of vessels can load and unload at any hour in the day. This will be a great acquisition, and is regarded by the Harbour Trust with anything but an unprejudiced eye. The Derwent Valley line is being rapidly pushed forward, and it is rumoured that it will be opened by Jan. 1. I fear, however, that this rumour is not correct. The leasing of land near the half-tide basin by Mr. Dickson, the well-known contractor, is significant of progress, and two more coal-drops will soon be erected on the site, to the benefit of the port. Contracts have been entered into for the construction of large works on the Burrows, for the celebrated firm of Ford and Shackelford, for the construction of railway carriages, &c. The works will cover nine acres of land, and will give employment to some 400 or 500 hands. The new works for the manufacture of zinc white have been opened during the past fortnight, near Messrs. Ford and Shackelford's works are to be. The works are conducted by a company (limited), under the supervision of M. Bornevay, the patentee and manager. A large business is likely to be done. Mr. Munro is the builder, and I believe, one of the principals in the concern. The prospectus is issued of the South Hotel Company (limited), but I have not yet had an opportunity of looking over a copy. The probabilities of success are considerable, as hotel accommodation in South Wales is proverbially deficient. The Swansea Hotel Company is quiet for the present, pending negotiations as to the purchase of some old property erected on the site required. This once settled, the object for which the company was formed will be carried out without delay.

The following are the imports of minerals during the past week:—Fortuna, from Seville, 80 tons of copper ore; for Richardson and Co.; Theophilus Felix, from Cagliari, 146 tons of lead ore, for Richardson and Co.; William Edwards, from Aveiro, 120 tons of copper ore, for Richardson and Co.; Wasp, from Cagliari, 250 tons of lead ore, for Richardson and Co.; Wild Wave, from Coquimbo, 314 tons of bar copper, and 380 tons of copper ore, for C. Lambert; Favonite, from Santander, 85 tons of copper ore, for Elford and Co.; Nazzarino, from Adra, 150 tons of zinc ore, for Munroe and Co.; Pedro Ferrar, from Cuba, 631 tons of copper ore, for the Cobrego Copper Company; Claudine, from Caldera, 409 tons of copper ore and 268 tons of silver ore, for Hosh and Son; Eliza, from Krageroe, 8 tons of copper ore and 200 tons of nickel ore, for Vivian and Sons.

FIRE AND BURGLARY DETECTOR.—Messrs. Watson and Horwood are at present manufacturing a very neat alarm for giving notice of burglary or fire; the alarm consists of a small bell which is struck by the action of an electro-magnet.

The electricity is supplied by a Smee's battery of suitable power, and the wire is so laid that contact may be made or broken by the opening or shutting of the door or window it is desired to protect. It is considered that the apparatus would be applicable to a signal bell for collieries.

#### FOREIGN MINING AND METALLURGY.

The industry of the district coming under the notice of the Namur Chamber of Commerce being principally associated with the production of raw materials, has reflected less than other industries the perturbation which characterised the season of 1863. Nevertheless, in the Namur district, as elsewhere, the obstruction of certain outlets has impeded the disposal of various products. This state of affairs has led industries to apply themselves vigorously to the development of other markets. After having made some observations full of interest on the position of the workers of the province, the report furnishes detailed information with respect to its coal mining industry and metallurgy. The production of the various collieries increased to the extent of upwards of 800,000 tons last year from 54, 74, to 54, 44 per ton. This diminution is the result of the necessity in which the coal mining industry of the province of Namur finds itself of sustaining competition against the coal of the Hainaut on transport conditions, which, as the report observes, become more and more unequal. The Namur Chamber, in referring to the subject, makes allusion to the enlargement of the sluices of the Charleroi Canal. But importation into France of the coal and coke of the district increased last year 91,000 tons. A table annexed to the report gives the total production of coal in the province of Namur, from which it appears that in that year the extraction amounted to about 50,000 tons, more than tripled in production and importance in the course of the last 27 years. The table with reference to the production of coal is followed by others referring to the production of mines of lead, zinc, pyrites, manganese, iron, iron minerals, and oligite minerals. The extraction of pyrites, lead, and zinc amounted last year to 18,108 tons, and that of iron to 134,631 tons for the mines conceded; for the free mines of iron, minerals the production was 509,633 tons, after washing; for oligite minerals it was 299,844 tons. The exportation into France of these different products amounted to 179,975 tons, and the total exportation represents an aggregate of 202,891 tons. All these results are much superior to those of 1862 and preceding years. The working of the quarries of the province was also carried on most prosperously last year. The number of blast-furnaces has diminished in the province, but there is a decided revival as regards those which are maintained. Forging operations conducted with charcoal find themselves, on the contrary, in a precarious state. The number of steam-engines in operation in the province increased last year; at the end of July, 1864, the total number was 355, of a collective force of 8626 horse-power. The workshops in which agricultural machinery is produced are in full activity. Cutlery, again, relies with increasing confidence on the effects of the Franco-Belgian Treaty of Commerce. The Chamber concludes its report in the following terms:—"The products of our district have nothing to fear from foreign competition as soon as international arrangements stipulate for reciprocity. Almost all our industries will then be able to sustain with success the struggle in the different markets, as soon as some of them are relieved from all shackles at home, and others are relieved from dues at the frontier, still maintained during a period of transition. Our industries, enlightened on the true nature of their interests, far from fearing the régime of commercial liberty, solicit, on the contrary, its fruitful application. Since the treaty with France of March 1, 1861, has made us enter on this fruitful path, the realisation of notable progress may be remarked in our district, processes of fabrication having improved, while productive forces have acquired more power." These are brave words.

The reports made with regard to the Belgian iron market present little change, the causes which give a character and tone to business remaining the same. Great firmness prevails, in fact, in quotations, while there is a good activity in all the works, a continuation and increase of relations abroad, and, finally, a probable maintenance of the situation during the approaching season. A continued animation prevails particularly in the market for rails and plates. These two products of local metallurgy are abundantly demanded at very good prices. At the last adjudication for rails on account of the Dutch Indian Railway Company, there were nine tenders sent in, and the lowest terms for five lots, of 1000 tons each, were offered by the house of Dorlodot and the Sambre Company at Maubeuge. The price for these two establishments was 9424l. per lot. The conclusion is also announced of two other affairs treated by the house of Dorlodot; the first for 6000 tons, to be delivered for England, through the medium of an English house, and the second of 3000 tons, for Belgium. It is expected that cast-iron will be in demand this winter, as a good number of works which manufactured castings previously will not be able to undertake orders, in consequence of engagements contracted in rails and other articles. It is announced from Liège that the construction establishments are regaining their activity; those particularly which occupy themselves specially with the manufacture of steam engines are doing a good business. A meeting of the shareholders in the Belgian General Railway Plant Company has just been held, and attracted a good deal of attention, in consequence of the reports of fusion or transformation circulated for some time past. From the explanations given by the council of administration, it appeared that negotiations have been pending between the company and MM. Dumez and Morel, in order to unite in a new company the original undertaking and the Tubize Company. At present no contract has been concluded, but the bases have been established which will serve for the definitive preparations of conventions. The General Railway Plant Company is to transfer to the new company all its premises, engines, tools, &c., at the establishments of Molenbeek St. Jean, Clichy, and Maubeuge, and to receive in payment 15,576 fully paid up shares in the new company. The liquidation of all the enterprises which are at present in course of execution—including some great works at Antwerp—will be preceded by the General Railway Plant Company; after an adjustment of the accounts, the net product of the liquidation will be paid to the new company, against 6000 shares liberated to the extent of 10l. each. The new company will be constituted with a capital of 1,000,000l., with power to carry the capital to 2,000,000l.; it will also be empowered to issue obligations to the extent of three-fourths the capital paid up. The share of the Tubize Company in the new organisation is fixed at 120,000l., represented by 1200 shares, paid up to the extent of 10l. each. The meeting of the General Railway Plant Company gave—with three dissentients—full powers to the council to pursue the negotiations for the definitive development of the new undertaking; at present, those negotiations have only reached a provisional stage. The Société de Vézin-Aulnoy has just declared a dividend of 1l. per share in respect of the exercise of 1863-4. The company conducting the Faunelle Colliery, at Courcelles, commenced its payment on Thursday (Sept. 1) of a dividend of 14s. per share, in respect to the first half of the exercise of 1864. The Paradis, Aroy, and Boverie Colliery Company is paying a dividend of 10s. 9d. per share as the distribution for the first half of 1864. The situation of Belgian coal mining industry is still described as sluggish. The reduction of transport tariffs on the State railways accomplished some months since, and adopted, besides, by several companies, has involved facilities in regard to prices, from which the great centres have especially profited. Thus, a public published at Brussels intimates that coal of first quality may be secured at 5l. 17s. 6d. per truck of 5 tons, delivered at the residence of the purchaser.

It is time now to turn to France. At St. Dizier charcoal-made refining pig firmly maintains its price of 4l. 12s. to 4l. 14s. per ton. Some producers have refused offers of 4l. 12s. per ton, and we cannot be surprised at this, having regard to the scarcity of the article. Iron is also in good demand. The continued drought has told severely on the local water courses; the fabrication of iron suffers naturally from this state of things, and it is excessively restricted wherever water is the only motive-power. Iron wire has been in good demand, and the enquiry for casting pig is also a little more satisfactory. On the whole, there may be said to have been some improvement in the business, but there is no change in prices, which are maintained by continuation, as follows:—Cast-iron, 4l. 12s. to 4l. 14s. per ton; merchants' iron, from charcoal-made pig, first-class, in warehouses at works, 16l. 10s. to 9l. per ton, with a scale of 4s. to 8s. per ton per class; first-class sheets, 12l. to 10l., with a scale of 12s. to 16s. per ton per class; first-class special irons, 8l. 16s. to 9l., with a scale of 4s. to 8s. per ton per class; ordinary irons, 10l. 16s. to 11l. per ton, &c. We read in the *Presse*:—"The construction of engines and machinery has acquired much activity. Some important orders are mentioned of locomotives for various French, Swiss, and Spanish lines of railway. Algeria also requires locomotives, mills, &c. Turkey wants a complete set of paper-making machinery and its motor; Syria, balance-beam engines and air-pumps; Switzerland, portable agricultural engines and machines; Bavaria, four horizontal engines of 80-horse power; Holland, refining apparatus; Guadeloupe, three sugar-cane mills, with horizontal engines of 10-horse power; Guiana, a distilling apparatus, two sugar-cane mills, and a vertical engine of 15-horse power; Mexico, some presses to be used in connection with the production of money, 20 mixed locomotives, some horizontal engines of 90-horse power, some signal apparatus, and other railway plant, &c. There is being constructed besides, at Paris, for the navigation of the Rhone, an engine of 100-horse power, some engines and distilling apparatus for several towns in the North, some hydraulic presses and engines of 20-horse power for paper makers, six vertical engines of 20-horse power for the Parisian Gas Company, some portable engines, and a number of small fixed motors for the fabrication of articles of Paris, some agricultural engines and patent granaries, &c."

The Paris copper market has been quiet, and prices are feeble. At Havre, disposable Chilean, in bars, remains at 88l. per ton; about 60 tons have been dealt in on these terms. The stock being much reduced at Hamburg, the article maintains its value well at that centre; at the same time, the demand refers principally to copper of fine quality, ordinary descriptions being comparatively neglected. At Berlin, holders maintain prices firmly; English copper especially is held at advancing rates. Previously indicated rates are maintained at Cologne; indeed, that market, as well as the German "places," has somewhat hardened of late. Drontheim has been quoted at 63 1/2 s., and United States at 62 1/2 s. to 63 s., according to quality. The official gazette of Spain publishes the conditions under which the copper obtained at the Rio Tinto State Mines is to be sold by public adjudication during the exercise 1864-5. The adjudication will take place Sept. 18, and offers will be received simultaneously at Madrid, Barcelona, Malaga, and Seville, for the sale of 16,000 arrobas. There is no improvement to note in tin, the prices of which continue to decline. At Rotterdam 1000 blocks of Banca have been dealt in at 61 1/2 s., 1500 blocks at 61 s.; at this latter price many sellers presented themselves. Advices from Paris at 61 s.; at this latter price many sellers presented themselves. Advices from Paris at 61 s.; at this latter price many sellers presented themselves. Banca, having made 109l. 8s.; Detroit, 108l.; and English, 107l. per ton. On the various German markets transactions have been confined within narrow limits, and are reduced almost generally to the most strict requirements of consumption; prices may be considered as nominal. The market for lead has been quiet at Paris, rough French making 21l. 8s.; Spanish, 22l. 12s.; and rolled, 23l. 10s. per ton. At Rotterdam the demand has been very limited. At Cologne soft lead is more feeble, but runs off tolerably freely at moderate prices. The Berlin market maintains itself in a good position; some small lots of lead from the district obtain the full rates which some holders require for better lots; indeed, that market, as well as the German "places," has somewhat hardened of late. Drontheim has been quoted at 63 1/2 s., and United States at 62 1/2 s. to 63 s., according to quality. The official gazette of Spain publishes the conditions under which the copper obtained at the Rio Tinto State Mines is to be sold by public adjudication during the exercise 1864-5. The adjudication will take place Sept. 18, and offers will be received simultaneously at Madrid, Barcelona, Malaga, and Seville, for the sale of 16,000 arrobas. There is no improvement to note in tin, the prices of which continue to decline. At Rotterdam 1000 blocks of Banca have been dealt in at 61 1/2 s., 1500 blocks at 61 s.; at this latter price many sellers presented themselves. Advices from Paris at 61 s.; at this latter price many sellers presented themselves. Banca, having made 109l. 8s.; Detroit, 108l.; and English, 107l. per ton. On the various German markets transactions have been confined within narrow limits, and are reduced almost generally to the most strict requirements of consumption; prices may be considered as nominal. The market for lead has been quiet at Paris, rough French making 21l. 8s.; Spanish, 22l. 12s.; and rolled, 23l. 10s. per ton. At Rotterdam the demand has been very limited. At Cologne soft lead is more feeble, but runs off tolerably freely at moderate prices. The Berlin market maintains itself in a good position; some small lots of lead from the district obtain the full rates which some holders require for better lots; indeed, that market, as well as the German "places," has somewhat hardened of late. Drontheim has been quoted at 63 1/2 s., and United States at 62 1/2 s. to 63 s., according to quality. The official gazette of Spain publishes the conditions under which the copper obtained at the Rio Tinto State Mines is to be sold by public adjudication during the exercise 1864-5. The adjudication will take place Sept. 18, and offers will be received simultaneously at Madrid, Barcelona, Malaga, and Seville, for the sale of 16,000 arrobas. There is no improvement to note in tin, the prices of which continue to decline. At Rotterdam 1000 blocks of Banca have been dealt in at 61 1/2 s., 1500 blocks at 61 s.; at this latter price many sellers presented themselves. Advices from Paris at 61 s.; at this latter price many sellers presented themselves. Banca, having made 109l. 8s.; Detroit, 108l.; and English, 107l. per ton. On the various German markets transactions have been confined within narrow limits, and are reduced almost generally to the most strict requirements of consumption; prices may be considered as nominal. The market for lead has been quiet at Paris, rough French making 21l. 8s.; Spanish, 22l. 12s.; and rolled, 23l. 10s. per ton. At Rotterdam the demand has been very limited. At Cologne soft lead is more feeble, but runs off tolerably freely at moderate prices. The Berlin market maintains itself in a good position; some small lots of lead from the district obtain the full rates which some holders require for better lots; indeed, that market, as well as the German "places," has somewhat hardened of late. Drontheim has been quoted at 63 1/2 s., and United States at 62 1/2 s. to 63 s., according to quality. The official gazette of Spain publishes the conditions under which the copper obtained at the Rio Tinto State Mines is to be sold by public adjudication during the exercise 1864-5. The adjudication will take place Sept. 18, and offers will be received simultaneously at Madrid, Barcelona, Malaga, and Seville, for the sale of 16,000 arrobas. There is no improvement to note in tin, the prices of which continue to decline. At Rotterdam 1000 blocks of Banca have been dealt in at 61 1/2 s., 1500 blocks at 61 s.; at this latter price many sellers presented themselves. Advices from Paris at 61 s.; at this latter price many sellers presented themselves. Banca, having made 109l. 8s.; Detroit, 108l.; and English, 107l. per ton. On the various German markets transactions have been confined within narrow limits, and are reduced almost generally to the most strict requirements of consumption; prices may be considered as nominal. The market for lead has been quiet at Paris, rough French making 21l. 8s.; Spanish, 22l. 12s.; and rolled, 23l. 10s. per ton. At Rotterdam the demand has been very limited. At Cologne soft lead is more feeble, but runs off tolerably freely at moderate prices. The Berlin market maintains itself in a good position; some small lots of lead from the district obtain the full rates which some holders require for better lots; indeed, that market, as well as the German "places," has somewhat hardened of late. Drontheim has been quoted at 63 1/2 s., and United States at 62 1/2 s. to 63 s., according to quality. The official gazette of Spain publishes the conditions under which the copper obtained at the Rio Tinto State Mines is to be sold by public adjudication during the exercise 1864-5. The adjudication will take place Sept. 18, and offers will be received simultaneously at Madrid, Barcelona, Malaga, and Seville, for the sale of 16,000 arrobas. There is no improvement to note in tin, the prices of which continue to decline. At Rotterdam 1000 blocks of Banca have been dealt in at 61 1/2 s., 1500 blocks at 61 s.; at this latter price many sellers presented themselves. Advices from Paris at 61 s.; at this latter price many sellers presented themselves. Banca, having made 109l. 8s.; Detroit, 108l.; and English, 107l. per ton. On the various German markets transactions have been confined within narrow limits, and are reduced almost generally to the most strict requirements of consumption; prices may be considered as nominal. The market for lead has been quiet at Paris, rough French making 21l. 8s.; Spanish, 22l. 12s.; and rolled, 23l. 10s. per ton. At Rotterdam the demand has been very limited. At Cologne soft lead is more feeble, but runs off tolerably freely at moderate prices. The Berlin market maintains itself in a good position; some small lots of lead from the district obtain the full rates which some holders require for better lots; indeed, that market, as well as the German "places," has somewhat hardened of late. Drontheim has been quoted at 63 1/2 s., and United States at 62 1/2 s. to 63 s., according to quality. The official gazette of Spain publishes the conditions under which the copper obtained at the Rio Tinto State Mines is to be sold by public adjudication during the exercise 1864-5. The adjudication will take place Sept. 18, and offers will be received simultaneously at Madrid, Barcelona, Malaga, and Seville, for the sale of 16,000 arrobas. There is no improvement to note in tin, the prices of which continue to decline. At Rotterdam 1000 blocks of Banca have been dealt in at 61 1/2 s., 1500 blocks at 61 s.; at this latter price many sellers presented themselves. Advices from Paris at 61 s.; at this latter price many sellers presented themselves. Banca, having made 109l. 8s.; Detroit, 108l.; and English, 107l. per ton. On the various German markets transactions have been confined within narrow limits, and are reduced almost generally to the most strict requirements of consumption; prices may be considered as nominal. The market



is available for export and inland delivery. A large trade is now done with the Continent, and though the export trade is at present languid, yet when the reduction in the French duty on pig-iron takes place in October, it is thought the outflow in that direction will be more considerable than it has yet been.—*Stockton and Hartlepool Mercury*.

### IMPROVEMENT IN PUMPS.

Although a considerable period has elapsed since the invention under consideration was first brought before the notice of the readers of the *Mining Journal*, and comparatively little has hitherto been done towards securing its adoption, the utility and economy of the pump is recognised as completely as ever, and there is the gratifying fact in its favour that in every case in which it has been applied it has proved highly successful. As a very efficient pump, constructed according to Mr. Bastier's patent, is at present in full work in the neighbourhood of London, it may not be out of place again to describe its mechanism, the time which has elapsed—nearly seven years—since the first pump was put to work being sufficient to efface all recollection of it even from the memory of those who fully appreciated its merits at the time of its introduction. The inventor has had two very serious difficulties to contend with; in the first place, the objections entertained with regard to the old-fashioned chain-pump led many to decline the thought of applying a machine with even a similar name; and, secondly, the inventor's inability to use our language prevented him from vindicating the claims of his invention. These difficulties have now been, to a great extent, overcome, and it is only reasonable to anticipate that the remaining half of the term of Mr. Bastier's patent will more than compensate him for the obstacles and delays encountered during the first.

The improvement which Mr. Bastier has introduced may be summarised in a very few words—he converts the floats into a series of tight fitting pistons during their passage through a certain portion of the tube, which is slightly contracted for the purpose. According to the depth of the water, the pump acts by pressure or by suction, so that upon its being put to work the water invariably flows freely as soon as any single disc has traversed the distance from the surface of the water to the top of the pump. It acts as a force-pump when the level of the water to be pumped exceeds 40 in., for then, as by the well-known law of hydrostatics, the water will rise in the interior of the tube to the same level as on the exterior, the disc entering the tube will force the water already in the tube before it. But should the water in which the pump-tube is immersed be less than a yard in depth, the suction principle comes into play; in this case the disc entering the tube after moving upward about 4 in. (for we should say that the bottom of the tube is trumpet-shaped, to facilitate the flow of the water), reaches the contracted portion of the tube, and draws the water after it ready to be forced onward by the following disc. It will be seen that in this compressed space the discs becoming packed by the slight compression of the India-rubber, play the part of a piston, the suction and forcing going on as long as motion is given to the pulley over which the endless chain passes, such pulley being fixed on an axle made to rotate either by a driving-band and steam-power, or by any other motor. Now, assuming that water is to be pumped from 300 yards, the tube would be provided with (say) three contracted portions, and as the discs traversing each of these contracted portions are at the same time acting as forcing-pistons to the water above them, and as suction-pistons to that below them, it is obvious that the power required to raise the column is reduced to the minimum. It will be readily understood that the entire pump, from the bottom of the mine to the outlet at surface, is always full of water; but this is not all—so perfect is the action, that the charge of water is not exhausted for more than an hour after the pump has been stopped. The consequence of the arrangement is, that the power of the pump may be increased to almost any extent, since the greater the speed of the pulley the greater is the number of discs which pass through the tube, and the greater the quantity of water raised.

The pump which is now continually at work at Messrs. Berger's, at Bromley-by-Bow, has a tube  $\frac{1}{2}$  inches in diameter, and pumps water from the depth of 177 yards. The power applied to keep the pump in motion is that of  $\frac{1}{2}$  horses, and it has been found, by careful measurement, that the average quantity of water raised is 195 gallons per minute, whilst as a proof of the non-liability of the pump to choke, it may be stated that pieces of wood, &c., 2½ inches square, and some inches in length, have been brought up with the water without in any way interfering with the action of the pump. The pulley over which the chain passes is never made less than a metre (39 inches) in diameter, and is made of cast-iron, and of a strength equal to double the weight it is required to support. The periphery of this pulley is so constructed that the grip is perfect, and slipping is rendered impossible. Cages are, as we have already stated, formed at intervals around the periphery, to receive the discs and protect them against injury from contact with the pulley. In the grooves which form the remaining portion of the periphery of the pulley, arrangements are made for supporting each link of the chain, consequently the *maximum* power is utilised; on each side of the groove there are projections between which the links on edge are received, the extremities of these projections serving to support the links lying on the flat; but to make sure doubly sure, Mr. Bastier provides a second *point d'appui*, in the shape of a pin placed in the centre of the groove, and which takes into the centre space of the link which lies on its flat. By this means friction and slipping are at once avoided, no matter what may be the speed at which the pulley is revolving, whilst the pull on the chain ensures each link falling in its proper position in the groove. On a pulley of a metre diameter there are fourteen links always in effective use, so that it will readily be seen that the power is immense. The links being each made of the best iron, and carefully tested up to thrice the weight it is to support, and the diameter, length, and thickness of all being similar, the best results are ensured. Comparing the first cost of the pump with that of those in ordinary use, it is found that the expense of manufacturing it and setting it to work is 50 per cent. less than that of common pumps when the depth is 50 fms., and 75 per cent. when the water has to be pumped from great depths. There is, moreover, increased safety secured to the miners, since if a tube somewhat larger than that likely to be required is applied, a trifling increase in the speed of the engine will suffice to throw up double the quantity of water. The inventor guarantees that the pump shall give from 90 to 92 per cent. of the effective force, and judging from the results which are actually obtained in practice, he appears to be fully justified in doing so; this great efficiency arises, probably, from the fact that the descending portion of the chain precisely balances the rising portion, so that it is to the lifting of the water alone that the power is applied. We trust, ere long, to have to report that the pump is in general use.

**NEW SHAKING-TABLE.**—Mr. Charles A. Stetefeldt, of New York City has secured a patent for a new invention for separating ores, which consists of a shaking-table, provided with two or more rotating bars arranged one above the other, in such a manner that by their action the pulverised ore, running down over them, is separated automatically by the action of the machine, according to the different specific gravities of the constituents, and that the separation can be continued to any desired degree simply by increasing the number of rotating beds.

**IDAHO QUARTZ CRUSHER.**—The quartz crusher to which this title has been given, invented by Mr. A. Hitchcock, of New York, is a modification of the ordinary Chilian mill and Cochran's Crusher, described in the *Mining Journal* about 10 years since. Mr. Hitchcock's mill has three wheels on axles, at angles of 120°, which are actuated by rotation of a weighted hopper, pressing upon their peripheries, and which contains the quartz to be crushed. The hopper may be rotated by horse-power or otherwise.

**THE NEW METAL.**—Magnesium was discovered by Sir Humphry Davy in 1807, but remained little else than a chemical curiosity until 1862-63, when Mr. Edward Sonstadt patented a series of processes, whereby it may be produced in any quantity. Magnesium is a metal white as silver, and very light; its specific gravity being 1.74, or about one-fifth the weight of copper. In the form of wire it may now be purchased at 3d. per foot at all the principal metallurgists, opticians, and photographic material dealers. If the end of a piece of wire be held in the flame of gas or a candle, it at once takes fire, and burns gently with a dazzling white light, by which a photograph may be taken with a perfection equal to sunshine. The wire supplies an excellent specimen of the metal, and burning a few inches is a brilliant and interesting experiment.

**MOTIVE POWER.**—The object of the invention of Mr. James Price, of Circus-street, Marylebone, appears to be to convert a rotary into a reciprocating motion, as for pumping, by providing teeth on the pump rods, and corresponding teeth on portions of the peripheries of spur wheels, suitably arranged.

**THE MOTIVE POWER ENGINE—STEAM SUPERSEDED.**—We have examined, during the past week, an engine, stated to be of 5-horse power, constructed under the patent of Mr. Mallard, and which, it is said, will work at 80 per cent. less cost, and occupy 50 per cent. less space than a steam-engine. The space occupied is about 10 feet, by 4 feet and 8 inches high, and it is anticipated that (when the machine is in motion) 5-horse power will be developed, although the steam supplied is only that which would, under ordinary circumstances, be required for a 1-horse engine. It is supposed that the increased power is obtained from levers connected with the plungers, which, in their descent, compress the air that is to give motion to the working piston, and the patentee anticipates that inasmuch as he has two plungers, the one will be raised whilst the other descends. Although we are ourselves utterly unable to see anything in the machine that would lead to the hope of obtaining more power than that resulting from the steam consumed, we were employed in an ordinary engine, we trust that Mr. Mallard will be enabled practically to demonstrate the advantage of his invention for a machine which can be worked at one-fifth the cost at present incurred, and occupy but one-half the space would be, without doubt, a desideratum. As Mr.

Mallard proposes (in his perfected machine) to compress the air which is to develop the power by the power developed, the problem of obtaining perpetual motion will of course be solved—when the perfected machine is got to work continuously.

### NEW INVENTIONS.

**PROVISIONAL PROTECTION** for six months has been granted for the following:—  
E. B. WILSON, London.—Improvements in furnaces. July 23.  
F. E. B. BRADGENT, Dover.—Improvements in machinery for driving drifts or galleries through stone or rock. July 31.  
T. J. HUGHES, London.—An improved composition to be used for coating surfaces, and insulating metal from metal. June 16.  
C. DENIS, France.—Improvements in heating or cooking stoves. June 25.  
J. LIVERSIDE, London.—Improvements in the permanent way of railways and carriages for the same. July 28.  
T. NEWBY, Suffolk.—Improvements in self-closing doors and gates. Aug. 2.  
W. WOODFIELD, Cambridge-terrace, London.—Improvements in apparatus for communicating between passengers and guards and engine-drivers on railway trains. Aug. 2.  
F. J. BRAMWELL, London.—Improvements in the manufacture of nuts for screw bolts, and in such like articles. Aug. 4.  
J. FARRER, Dublin.—Improvements in railway carriages, and in breaks for the same. Aug. 6.  
C. W. LANCASTER, London.—Improvements in projectiles. Aug. 6.  
M. PAYNE, Northampton.—An improved construction of traction-engine. Aug. 9.  
R. CORDNER, Stanhope.—An improved railway sleeper. Aug. 13.  
**LETTERS PATENT** have been issued for the following:—  
F. C. F. HOFFMANN, London.—Improvements in machines for crushing hard substances, for washing ores and minerals, and for separating earth and earthy matter from solid substances. February 16.  
H. A. JOWETT, Sawley.—Improvements in securing or fixing rails for the construction of the permanent way of railways. February 17.  
J. TRAVIS, Lancaster.—An improved method of preventing and curing corrosion and preserving the metal in steam boilers, steam regenerators, and fuel economisers. Feb. 19.  
J. RANSOME, Ipswich.—Improvements in the manufacture of artificial stone. Feb. 27.  
F. BUSH, Boston, America.—Improvements in rail cutting machines and mechanism for grinding the moveable cutters and dies used therein. April 26.  
W. ROWAN, Belfast.—Improvements in steam-engines. Feb. 23.  
A. WALL, London.—An improved combination, or improved combinations, of combustible materials to be used as fuel. Feb. 24.  
H. BARWELL, London.—An improved steam generator, specially adapted for horticultural purposes, but also useful for other purposes. Feb. 29.  
H. COCHRANE, York.—Improvements in moulds for casting metal. March 5. [31.  
E. BORROW, Lancashire.—Improvements in pumps for lifting or moving liquids. Mar. LIST OF SPECIFICATIONS published during the week:—  
Communicating in railway trains, 84; slide valves, 84; clearing iron for locomotives, 44.  
L. DE FONTAINE-MORÉAC.

**MANUFACTURE OF PEAT AND PEAT CHARCOAL.**—An invention has been patented by Mr. J. J. Hays, of Hitchin, for improvements in the manufacture of peat and peat charcoal. The apparatus employed in the first stage consists of a grinding-mill formed of discs of cast-iron, or other suitable material, fixed vertically in a frame, and having the surfaces, which are in contact, or nearly in contact, rubbed or grooved either radially or spirally, in conjunction with other mechanism. He describes an improved form of kiln for drying. The third part of the invention consists of retorts for carbonising peat, and in the condensation and collection of the tar and other products derived from the distillation of peat.

**PRODUCING HYDROCARBON OILS.**—In operating upon gas tar, coal tar, asphalt, and other bituminous substances, in order to obtain their various products, Earl Dundonald proposes to combine the substance to be operated upon with sulphuric or other suitable oxidising body, as sesquioxide of iron; this combination he effects in a retort, still, or other convenient apparatus. He then volatilises the products by the use of superheated steam, the distilled vapours being condensed in the ordinary manner. By thus combining the raw material with an oxidising agent, and distilling it in combination with the same, he obtains a considerably increased portion of oil, and of greater purity. He also obviates the necessity of operating upon the distillate obtained from the first distillation. The quantity of sulphuric acid, sesquioxide of iron, or other oxidising body employed, varies from 2 to 10 per cent., being regulated entirely by the character of the raw materials operated upon, and the nature of the products required.

**MINERAL TRAFFIC ON RAILWAYS.**—Annexed is a statement showing the quantities of coal, coke, and minerals carried over the twelve leading railway systems of Great Britain in 1863, as compared with 1862:—

System.	1863.	1862.
1.—Caledonian .....	3,883,392	3,524,385
2.—Great Eastern .....	654,583	616,805
3.—Great Northern .....	1,572,472	1,283,856
4.—Great Western .....	4,860,389	5,171,166
5.—Lancashire and Yorkshire .....	2,918,204	2,666,400
6.—London, Brighton, &c. ....	330,080	290,209
7.—London and North Western .....	6,118,611	5,338,390
8.—London and South Western .....	376,318	286,087
9.—Manchester, Sheffield, &c. ....	577,700	521,378
10.—Midland .....	1,325,790	1,364,153
11.—North Eastern .....	1,547,184	1,289,143
12.—South Eastern .....	166,013	158,735

The North Eastern thus stands at the head of the list in respect to mineral traffic. The immense progress which this fine system has made in this regard is attributable, to some extent, to amalgamation arrangements, a good deal more mileage being now worked under the general designation of the North Eastern. At the same time, there can be no doubt that the mineral traffic of British railways has a steady tendency to increase.

**RAILWAY CALLS.**—The amount falling due in September is 128,756*l.*—making the total called during 1864, 10,128,474*l.*

**THE ASSOCIATION FOR THE PREVENTION OF STEAM-BOILER EXPLOSIONS.**—The monthly meeting of this association was held at the offices, Manchester, on Tuesday (Mr. W. Fairbairn in the chair), when Mr. L. E. Fletcher, the chief engineer, presented his report, of which the following is an abstract:—I have to report for the present month the explosion of four boilers employed for steam purposes, by which six persons have been killed and six others injured. Not one of these boilers was under the inspection of this association, while two of them have been personally examined since their explosion. Another explosion, resulting in the death of three men, as well as injury to several others, happened at a gaswork to the boiler of a naphtha still. It is not customary in stills of this character to supply them with any safety valve or pressure gauge, as considerable difficulty is met with in applying them, so that their safety depends entirely on the freedom of the outlet for the gases and liquids. Since, however, this is apt to become clogged, and in this case became hermetically sealed, it would appear that this is an arrangement that at least deserves reconsideration. One explosion occurred at an engine-builder's, and by it two persons were killed and five others injured. The boiler was new, not having worked more than nine months. It was of vertical tubular construction, with a self-contained internal furnace, the flames passing upwards through the tubes and the water surrounding them. The cause of the explosion was investigated by two engineers of considerable repute, and they attributed the explosion to excessive pressure, a pressure considerably above that at which the boiler was usually worked. They had not, however, discovered the cause of that excessive pressure, but thought it might possibly have been due to overloading of the safety-valve. It is extremely unsatisfactory not to arrive at the precise cause of every explosion, but there appears to be more difficulty in doing so in the present instance than is usually found to be the case. Although the precise cause of the failure of this boiler can scarcely be said to have been as fully ascertained as it is desirable it should be in every case of explosion, yet the owners have very wisely determined to replace it with one of different construction, and are now subjecting the whole of their boilers to the hydraulic test, which they intend to repeat periodically, and thus put their boilers upon a safer footing than they had been before the explosion.

**FIRE-STONE.**—An article of this character has lately been discovered in Emeraldale county. It has the weight of fire-brick, and by an experiment tried in a furnace of an iron foundry, it is proved to be as good, or even superior, to the best fire brick. In colour this stone is very white, with delicately tinted purple veins.—*San Francisco Mining and Scientific Press*.

**TO MINING COMPANIES AND OTHERS—BLAKE'S PATENT STONE BREAKING MACHINE.**—FOR SALE, ONE OF THESE MACHINES, made by Marsden, of Leeds, perfectly new, and in excellent order. It is now near Charlton-on-War, in Cornwall. Cost £180. Price for cash, £150.—Apply to Mr. CRAVEN, 6, East Parade, Leeds.

**FOR SALE, an excellent CORNISH PUMPING ENGINE, made at the Perran Foundry, 49 in. cylinder, works to 70 horse power, stroke 8 ft. 6 in. in shaft, 9 ft. in cylinder, with 13 ton balance beam, and TWO TUBULAR BOILERS 30 ft. long, 5 ft. in diameter. Also, about 140 to 150 fms. of 11 in. pumps, with 10 in. working barrel, &c., and 135 fms. pump rods. The engine, &c., may be seen at the Old End Lead Mine, Criche, near Whistlandwell station, on the Buxton Railway.—Apply to WILLIAM MILNER, Esq., Stubbin Edge Hall, near Chesterfield; or to WALKER COX, Esq., Derby.**

**FOR SALE, a PATENT MINING PORTABLE ENGINE,** by Medwin and Hall, engineers, 92, Blackfriars-road, London, No. 31, 18 inch cylinder, 2 feet 6 in. stroke, double tube, boiler in good repair. Apply to Messrs. PHILLIPS and LEWIS, merchants, Carmarthen.

**SPIEGELEISEN.—SPECULAR PIG IRON of the VERY BEST QUALITY, 47 10s. PUDDLED STEEL, in square and flat bars, 41 10s. f.o.b. at Hall. Samples on application. JULIUS GOLDSTEIN, Hamburg.**

**IRON PYRITES.—PERSONS REQUIRING IRON PYRITES** from Spain, with FIFTY PER CENT. SULPHUR, are requested to apply to B. ABELLÉ, Fonda del Comercio, Santander, Spain.

**MR. R. SYMONS, SURVEYOR, &c., TRURO,** having engaged a lithographic artist, is PREPARED TO EXECUTE EVERY DESCRIPTION OF MAPS, PLANS, CHARTS, PROSPECTUSES OF MINES, &c., in the best style of art, at the shortest notice, and at moderate prices. Surveying and Lithographic Offices, Fydar-street, Truro, July 14, 1864.

**MR. ROBERT SYMONS, MINE SURVEYOR, &c., TRURO,** possessing an intimate knowledge of Cornish mines, is well qualified to ADVISE CAPITALISTS as to their BUYING or SELLING SHARES. For a fee of two guineas Mr. R. SYMONS will ascertain and accurately report the state of any mine within 20 miles of Truro; if beyond that distance a fee of three guineas will be charged.

### Royal School of Mines.

**ROYAL SCHOOL OF MINES.**  
DIRECTOR—SIR RODERICK IMPEY MURCHISON, K.C.B., F.R.S., &c.  
During the Session 1864-5, which will commence on the 2d of October, the following COURSES OF LECTURES AND PRACTICAL DEMONSTRATIONS will be given:—  
1.—CHEMISTRY .....

**Miners' Association of Cornwall and Devonshire.**  
**MINERS' ASSOCIATION OF CORNWALL AND DEVONSHIRE.**  
JOHN FRANCIS BASSETT, Esq., President.  
The ANNUAL MEETING of the Association will TAKE PLACE on THURSDAY, 8th September, in the Committee Room, POLYTECHNIC HALL, FALMOUTH. The chair will be taken at Two P.M. A meeting of the Council will be held previously to the public meeting.  
All papers intended to be read at that meeting should be sent not later than Monday, the 25th September, addressed to the Honorary General Secretary, St. Agnes; or after that date to the Polytechnic Hall, Falmouth.  
ROBERT HUNT, F.R.S., Honorary General Secretary.

**TO MINE AGENTS.—WANTED, at the CRENVER AND WHEEL ABRAHAM UNITED MINES, a FIRST-CLASS MINING AGENT,** to act under the direction of the manager. He will be required to devote his whole time to the duties of the situation. Salary, £9 9s. per month. Applicants will please send their testimonials on or before Monday, the 12th of September next, to the manager, at the mines, or to Messrs. S. F. GIFFIN and Co., 1, Basinghall-street, London.  
Dated Crenver and Wheel Abraham United Mines, Crenver, near Camborne, August 25, 1864.

**TO CAPITALISTS.—WANTED, a PARTNER, with about £4000, in a FIRST-CLASS COLLIERY.** The return would be most advantageous. The cost of raising the coal, including royalty, expenses of management, interest on capital, &c., would be not more than 4s. 6d. to 5s. per ton, whereas 9s. 6d. to 10s. per ton is the average price on the pit brow.—Address, "W. 15," Post-office, Liverpool.

**TO CAPITALISTS.—THE LESSEE OF A FIRST-CLASS COLLIERY in NORTH WALES WANTS a PARTNER, with about £2000.** A mining engineer or practical colliery manager might have the management. A profit of 4s. per ton can be clearly shown on the coal raised in the royalty, which is an extensive one.—Address, "Bryn," care of Mr. H. Greenwood, advertising agent, Liverpool.

**THE ADVERTISER, having considerable experience in Cornish and Devon mining, OFFERS HIS SERVICES to any COMPANY REQUIRING an INSPECTION of MINERAL PROPERTIES, at home or abroad.**—Address "C. B.," care of Roberts and Co., 97, London Wall, London.

**WANTED, by the advertiser, a SITUATION as MILL and FORGE MANAGER, or GENERAL SUPERINTENDENT of an IRON WORKS.** He has had 23 years practical experience, and is conversant with the manufacture of rails, bars, plates, puddled steel, &c.; also with the costs, yields, and other accounts appertaining to an ironworks.—Address, "A. B.," 200, Oxford-road, Manchester.

**WANTED, a 45 in. CORNISH SINGLE ACTING BEAM PUMPING ENGINE.**—Address, with full particulars, to "R.," care of Messrs. Rixon and Arnold, Poulton.

**IRON.—WANTED, a GENTLEMAN to JOIN the ADVERTISER** IN BRINGING OUT a VALUABLE PATENT, which will consume at least 200 tons of iron per week, and REALISE FIFTEEN PER CENT. upon the gross returns. A few hundred pounds only is required. The machinery has been proved, favourably reported upon by eminent engineers, and may be seen. It may be employed in Wales, Staffordshire, and the North. None but principals need apply.—Apply by letter only, "322," Midland Counties Herald office, Birmingham.

**THE SNOWDON COPPER MINE—IMPORTANT TO CAPITALISTS.**—The Directors of the Cwmdeby Copper Mining Company (Limited) are now OPEN to TREAT with a PARTY or PARTIES who may be WILLING to ADVANCE on equitable terms, with the present company, a SUM of THREE THOUSAND POUNDS, for the further development of the mine and property, which is well supplied with machinery and requisite plant for carrying out increased working.—Full detailed particulars may be had of the secretary, Mr. ROBERT ELLIS, National Provincial Bank of England, Bangor.

**WEST PAR CONSOLS TIN AND COPPER MINE.**—FOR SALE, in One Lot, this MINE and PLANT.—Full particulars can be obtained on application to Mr. J. H. MURCHISON, 8, Austinfriars, London, from whom orders to inspect can be obtained.

**TO BE DISPOSED OF, PART or the WHOLE of a good CHINA CLAY WORK, in the county of CORNWALL,** with ample water-power, capable of producing from 2000 to 3000 tons of clay of the best quality annually. Parties desirous of treating for same may have full particulars on applying to "A. B.," Post-office, Bodmin.

**MINING FINANCIAL ASSOCIATION (LIMITED).**—Notice is hereby given, that the directors have appointed Edward James Gibbs, Esq., the manager of this association, and will PROCEED to the ALLOTMENT of SHARES. A limited number of shares may be obtained at par during the ensuing week, on application to the manager.  
This association will shortly be prepared to undertake all business connected with mining and mining shares.  
JOHN HENRY JARVIS, Sec.  
Office, No. 52, Walbrook, London, E.C., September 2, 1864.

**CONNORREE MINING COMPANY (LIMITED).**—Notice is hereby given, that an ORDINARY GENERAL MEETING of this company will be HELD at their offices, 46, Dame-street, Dublin, on SATURDAY, 10th Sept. at One o'clock P.M., for the purpose of submitting the report of the directors and statement of accounts for the half-year ended 31st May, 1864, for the appointment of auditors and their remuneration, for the election of two directors, and for the transaction of the ordinary business of the company.  
N.B.—The transfer books of the company will be closed from the 27th inst. to the 10th Sept., both days inclusive.  
By order, GEORGE DEDRICKSON, Sec.  
46, Dame-street, Dublin, Aug. 26, 1864.

**COED MAWR POOL MINING COMPANY (LIMITED).**—At an EXTRAORDINARY GENERAL MEETING of the shareholders of the above company, held at the offices, No. 25a, Bucklersbury, in the City of London, on Thursday, the 11th day of August, 1864, a special resolution, passed at an extraordinary general meeting of the shareholders, which was held on the 25th day of July last, at the same place, that this company should be WOUND-UP VOLUNTARILY, in pursuance of Act 25th and 26th Vict., cap. 89, was confirmed; and at the same meeting it was also resolved that Messrs. Anthony Blackborne and George Isabell should be, and they were thereby, appointed liquidators for the winding-up of the company voluntarily.

**COED MAWR POOL MINING COMPANY (LIMITED),** NEAR LLANRWST, NORTH WALES.  
The Liquidators appointed for winding-up the affairs of the above-named company are PREPARED, on or before the 15th day of September, 1864, to RECEIVE TENDERS for the PURCHASE, BY PRIVATE CONTRACT, of the above LEAD MINES for the RESIDUE of the LEASES for which are held, together with the VALUABLE PLANT, MACHINERY, BUILDINGS, TOOLS, and OTHER IMPLEMENTS now upon the mines.  
Further particulars and other information may be obtained of Mr. GEO. I. SOFER, one of the liquidators, at the offices of the company, 25a, Bucklersbury, London.

**TITANIC STEEL AND IRON COMPANY (LIMITED).**—At the THIRD ORDINARY GENERAL MEETING of this company, held at the King's Head, Hotel, Darlington, on Thursday, the 26th of August, the following resolutions were passed:—  
1.—That the report of the directors be adopted, and the balance-sheet approved.  
2.—That a dividend be declared for the past half-year, after the rate of 6 per cent. per annum on the A shares, and of 3 per cent. per annum on the B shares.  
3.—That Mr. William Whitwell be elected auditor, in the room of Mr. J. R. Breckon, who has joined the board.  
4.—That the thanks of the meeting be given to the Chairman and directors for their services during the past half-year.  
ISAAC WILSON, Chairman.  
Belgrave House, Cheltenham, 30th August, 1864.

**MESSRS. ROBERTS AND CO., 87, LONDON WALL, E.C.,** have selected a LIST of DIVIDEND and PROGRESSIVE MINES, which they can strongly recommend. Also, Bank, Railway, and other shares.  
Commission, 1½ per cent.  
Office of ROBERTS and Co.'s "Price List, and Stock and Share Reporter," price 3d.

**MESSRS. ROBERTS AND CO.'S PRICE LIST AND STOCK AND SHARE REPORTER** contains Reports of Mines, Notices of Meetings, Plans of Mining Districts (showing the position of progressive mines in reference to those returning large profits), Railway Meetings, Joint-Stock Companies Intelligence, and Advice as to the Purchase and Sale of Stock.—87, London Wall, E.C.

**MONEY.—CONTRACTORS and OTHERS can be ACCOMMODATED with LOANS, DISCOUNTS, &c.—Apply to Messrs. WILKINSON and Co., monetary negotiators and arbitrators, &c., 25, Birch Lane, Corp Hill, London, E.C.**



**MR. C. SCHIELE** (of the firm of C. Schiele and Co.) OFFERS HIS SERVICES AS AN ENGINEER, INVENTOR AND CONSTRUCTOR OF TURBINES, FANS, VENTILATORS FOR MINES, PUMPING MACHINERY, &c., TO LAY OUT, ADVISE ON, AND ASSIST IN, any of the MECHANICAL OPERATIONS, PUMPING ARRANGEMENTS, MODES OF TRANSMITTING POWER THROUGH INTRICATE WORKINGS, &c., as required in the various manipulations of mining.—Please address MR. SCHIELE, 26, Milton-street, Stockport-road, Manchester.

**PALFREYMAN AND CLARK, PRACTICAL ENGINEERS,** are PREPARED TO MAKE DRAWINGS AND UNDERTAKE THE EXECUTION OF LOCOMOTIVES AND STATIONARY ENGINES FOR IRONWORKS, MINES, &c., AND MACHINERY IN GENERAL. They will also superintend the execution of orders in this country for abroad.—4, Corporation-street, Manchester.

**NICKEL AND COBALT REFINING, AND GERMAN SILVER WORKS, 16, COZELL STREET NORTH, BIRMINGHAM.**  
**STEPHEN BARKER** begs to inform the Trade that he has the following articles for sale:—  
REFINED METALLIC NICKEL. OXIDE OF COBALT. (WIRE, &c.)  
REFINED METALLIC BISMUTH. GERMAN SILVER—IN INGOTS, SHEET  
NICKEL AND COBALT ORES PURCHASED.

**GOLDENHILL, COBALT, NICKEL, COLOUR, BORAX, AND CHEMICAL WORKS,**  
NEAR STOKE-UPON-TRENT, STAFFORDSHIRE.  
**JOHN HENSHALL WILLIAMSON, MANUFACTURER AND REFINER.**  
Reference.—Professor Miller, King's College, London.

**TO ENGINEERS, CONTRACTORS, AND OTHERS.**—  
PERSONS DESIROUS OF PURCHASING THE PATENT RIGHT OR ROYALTY FOR JEWELL'S PATENT FLUE AND TANK BOILER are REQUESTED TO FORWARD OFFERS TO his agent, Mr. W. T. RAWLE, Branch Patent Office, 39, Rudge-street, Bristol, where plans and copy of specification may be obtained.

**IMPORTANT TO MINING.**  
**MESSRS. SMYTH AND WASLEY'S PATENT**  
PREPARATOR, FOR SPALLING AND SEPARATING  
THE ORE FROM THE STONE.  
Agent:—Mr. RAWLE, Patent and Mining Agent, 39, Rudge-street, Bristol, where model may be seen, and particulars obtained.

**HORIZONTAL ENGINES FOR SALE,** at very low prices:—  
One 12 in. cylinder, 24 in. stroke; one 12 in. cylinder, 36 in. stroke; and two 14 in. cylinders, 24 in. stroke. All ready for delivery, and may be had with or without fly-wheels.—Apply to Messrs. E. PAGE AND CO., Laurence Pountney-place Laurence Pountney-hill Cannon-street E.C.

**RAILWAY CARRIAGE COMPANY (LIMITED),**  
ESTABLISHED 1847.  
OLDBURY WORKS, NEAR BIRMINGHAM.  
MANUFACTURERS OF RAILWAY CARRIAGES AND WAGONS, AND EVERY DESCRIPTION OF IRONWORK.  
Passenger carriages and wagons built, either for cash or for payment over a period of years.  
RAILWAY WAGONS FOR HIRE.  
CHIEF OFFICES, OLDBURY WORKS, NEAR BIRMINGHAM.  
LONDON OFFICES, 6, STOREY'S GATE, GREAT GEORGE STREET, WESTMINSTER.

**THE BIRMINGHAM WAGON COMPANY (LIMITED)**  
is PREPARED TO SUPPLY RAILWAY WAGONS OF EVERY DESCRIPTION, capable of carrying 6, 8, or 10 tons, at annual rentals, or for purchase on deferred payments, on advantageous terms.  
EDMUND FOWLER, Sec.  
OFFICES, 3, NEWHALL STREET, BIRMINGHAM.

**THE BEVERLEY IRON AND WAGON COMPANY (LIMITED),**  
MANUFACTURERS OF RAILWAY WAGONS, WROUGHT AND CAST IRON CARRIAGE AND WAGON WHEELS, LURRIES, AND ROAD WHEELS AND AXLES OF EVERY DESCRIPTION.  
PATENT WHEEL MANUFACTORY, BEVERLEY IRONWORKS, BEVERLEY, YORKSHIRE.

**THE KILCROHANE AND GURTNAKILLA SLATE AND SLAB COMPANY (LIMITED),**  
Capital, £40,000, in 10,000 shares of £4 each.  
Deposit, 10s. per share on application, and 10s. per share on allotment.  
Registered under the Companies Act.  
DIRECTORS  
Capt. WILLIAM B. BEATTY, Argyle-road, Kensington, W.  
CAPT. COAPE, Esq., Pryor's Bank, Fulham.  
GEORGE BEDFORD, Esq., Loughborough-park, Brixton.  
WILLIAM JOHNS, Esq., Junior Carlton Club, Regent-street.  
Major-General MASON, South Parade, Trafalgar-square, S.W.  
ALFRED MELLIARD, Esq., Princes-square, Kensington.  
JAMES TURRELL, Esq., Ramsgate.  
BANKERS—Messrs. Olding, Osborne, and Co., 29, Clements-lane, Lombard-street.  
BROKERS—Messrs. Aarls and Co., 75, Old Broad-street.  
AUDITORS—To be elected by the shareholders.  
SECRETARY (pro tem.)—J. Nightingale, Esq.  
TEMPORARY OFFICES, 150, LEADENHALL STREET, LONDON.

**ABRIDGED PROSPECTUS.**  
This company is formed for the purpose of purchasing the leases of and extending the works of a very valuable slate and slab quarry, now in full operation and making returns. Full prospectus, with reports, also forms of application for shares, can be obtained from the brokers or secretary, and samples of the slates and slabs can be seen at the offices of the company.

**CAPT. C. WILLIAMS, TYN-Y-WERN, TALIESIN,**  
via SHREWSBURY, has had upwards of 30 years' practical experience in mining, during which time he had the entire management of several English and Welsh mines. Residing in the centre of the CARDIGANSHIRE MINING DISTRICT, and in close proximity to those of MERIONETHSHIRE and MONTGOMERYSHIRE, he OFFERS HIS SERVICES TO SURVEY AND REPORT UPON ANY MINE.

**BRITISH AND FOREIGN INVESTMENT.**—  
MR. THOMAS SPARGO, STOCK, SHARE, AND MINING BROKER, 224 and 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C., TRANSACTS EVERY DESCRIPTION OF BUSINESS IN THE PURCHASE AND SALE OF SHARES IN BANKS, CANALS, MINES, RAILWAYS, BRIDGES, INSURANCES, AND ALL OTHER DESCRIPTIONS OF BRITISH AND FOREIGN STOCK.  
Mr. SPARGO has for sale shares in English mines paying from 10 to 20 per cent. upon the present price, in bi-monthly and quarterly dividends, as also a number of shares in good progressive mines, some of which he with confidence specially recommends to the public as sound investments.

Mr. SPARGO gives every information as to position and prospects of all mining undertakings, upon application, either personally or by letter, and is enabled, through his long experience, aided by his monthly visits to Cornwall, Devon, and Wales, to obtain the most reliable information as to the numerous mines in those districts. He will, at all times give the best advice as to investment in mines, and, if necessary, inspect them himself; as in all cases he wishes to be guided by the intrinsic value of the property. Upon the receipt of 5s. he will furnish a selected list of dividend and progressive companies.

Mr. SPARGO has published the following works, viz.:—  
Statistics and Observations upon the Mines of Cornwall, 1859, price 2s. 6d.  
Ditto ditto ditto ditto ditto ditto 1860, price 2s. 6d.  
Ditto ditto ditto ditto ditto ditto 1862, price 5s.  
Ditto ditto ditto ditto ditto ditto 1864, price 5s.  
Physical, Geological, and Parish Map of Cornwall. Scale, three miles to an inch. Printed in three colours, showing distinctly the mining districts, the height of the hills, &c. Price 10s. 6d., on cloth and rollers.  
Geological maps of the various mining districts, showing the boundary line of each mine, with the lodes, cross-courses, and elevations by which it is traversed. Price 2s. 6d. each.  
A Model, or Relief, map of Cornwall (6 ft. 6 in. by 5 ft.), presenting the names of every town and village, as also every characteristic point of the county. Price £5 5s.  
Dividends received, calls paid, and all orders promptly negotiated.  
Commission 1 1/4 per cent.

Mr. SPARGO has 20 years' experience of mining, ten of which he was engaged in practical mining, and ten years he has transacted business in mining shares and stock, at 224 and 225, Gresham House, Old Broad-street, City, E.C.  
Bankers: Bank of London, and the Metropolitan and Provincial Bank (Limited).

**COLORADO MINING AGENCY OF GIBSON AND DELANY**  
OFFICES, DENVER AND CENTRAL CITIES, COLORADO; and 4 and 6, FINE STREET, NEW YORK CITY.  
INFORMATION GIVEN ON ALL COLORADO MINING PROPERTY, EXAMINED, AND REPORTED UPON.  
FULLY DEVELOPED MINES FOR SALE.  
MINING PROPERTY BOUGHT, SOLD, OR TAKEN ON COMMISSION.  
Stockholders and other parties having interests in Colorado mining property can at all times obtain confidential and reliable information to latest dates, as to the value of their investments.

**MR. BRENTON SYMONS, MINING ENGINEER AND SURVEYOR,** can PROCURE MINING SETTS IN ANY DISTRICT IN CORNWALL OR DEVON.—18, Hatton-garden, E.C.

**MR. BRENTON SYMONS INSPECTS AND REPORTS ON ANY MINERAL PROPERTY.** In all cases where procurable a plan will accompany his report.—18, Hatton-garden, E.C.

**MR. BRENTON SYMONS, M.E.,** begs to inform his clients that he will be unable to be in the Miners' district until the 30th inst.  
Truro, August 16, 1864.

**PRACTICAL MECHANICS' JOURNAL** for September (Part 198, price 1s.), with a large plate engraving of Fletcher, Jennings, and Co.'s Mineral Tank Locomotive, and thirty wood engravings. Original Articles on Tunneling, Dutch Field Artillery, Ringed Structure in Ordnance, Report of the Commissioners of Patents, 1861. Recent Patents:—Young and Kirk, Motive Power Engines; Hamilton, Stopping Bottles; Young, Preserving Vegetables and Animal Matters; Irvine, Richardson, and Lundy, Oils; Johnson, Polishing Glass; Johnson, Propelling and Steering Vessels; Lucius, Colours; MacAdam, Stoppers and Bangs. Law Reports, Reviews of New Books, Mechanics' Library, Correspondence, Scientific Societies, Monthly Notes, Marine Memoranda, Prices Current, List of Patents, Registered Designs, &c.  
London: Longmans, Paternoster-row; Editor's Office (Offices for Patents), 47, Lincoln's Inn-fields.

## THE MINING JOURNAL.

In the Court of the Vice-Warden of the Stannaries.  
Stannaries of Cornwall.

**IN THE MATTER OF THE COMPANIES ACT, 1862,** and of the DULTA TIN MINING COMPANY (LIMITED).—By an order made by His Honour the Vice-Warden of the Stannaries in the above matter, dated the 31st day of August, on the petition of John Martyn, of St. Dennis, within the said Stannaries, a creditor and also a contributory of the said company, it was ordered that the said DULTA TIN MINING COMPANY (LIMITED) should be WOUND-UP by this Court, under the provisions of the Companies Act, 1862.  
HODGE, HOCKIN, AND MARRACK, of Truro, Cornwall  
(Solicitors for the Petitioner).  
Dated Truro, August 31, 1864.

## In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

**IN THE MATTER OF THE COMPANIES ACT, 1862,** and of the NORTH HALLENBEAGLE TIN AND COPPER MINING COMPANY (LIMITED).—By an order made by His Honour the Vice-Warden of the Stannaries in the above matter, dated the 27th day of August inst., on the petition of Richard Mitchell, of the parish of Gwennap, in the county of Cornwall, a creditor of the said company, it was ordered that the voluntary WINDING-UP of the said NORTH HALLENBEAGLE TIN AND COPPER MINING COMPANY should be continued, but subject to the supervision of the said Court, and that John Martyn, of Leeds, in the county of York, engineer, should be continued the liquidator of the said company, subject to such security as the Registrar of the said Court might require, and that the books, papers, and documents of the said company should be transmitted to the office of the said Court, at such times and in such mode as the said Registrar might think fit, for the purpose of verifying and confirming the list of creditors and contributories, and for any other necessary purpose.

And it was further ordered that all persons entitled to inspect the same should be at liberty to do so, whether they were in the custody of the said Registrar or of the said liquidator, and that the said official liquidator should be at liberty to employ Mr. John Blackburn, of Leeds, as his solicitor, and that no steps should be taken to recover by legal proceedings any arrears of calls now due, or claimed to be due, until the list of contributories and creditors should have been confirmed by the said Court, and in no case without the sanction of the said Court, and that the said liquidator should proceed to a sale of the machinery, materials, plant, and other effects of the mine belonging to the said company, by public auction, such sale to be on the terms and conditions to be settled by the said Registrar, with liberty to accept any private contract, with the sanction of the said Court.  
HODGE, HOCKIN, AND MARRACK, of Truro, Cornwall  
(Solicitors for the Petitioner).  
Dated Truro, August 31, 1864.

## In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

**IN THE MATTER OF THE COMPANIES ACT, 1862,** and of the WENDRON UNITED MINING COMPANY.—TO BE SOLD, under the direction of the Registrar of the said Court, BY PUBLIC AUCTION, on Monday, the 12th day of September inst., at Eleven o'clock in the forenoon, at WENDRON UNITED MINES, in the parish of Wendron, within the said Stannaries, either together or in lots, the MINE SETTS OR GRANTS of the said company, and the undermentioned MINING MACHINERY AND MATERIALS, viz.:—  
ONE 24 in. cylinder ROTARY ENGINE, with 8 tons BOILER.  
1 fly-wheel, 10 tons.  
2 bobs, 4 1/2 tons each.  
16 stamps heads and axle, with 4 frames.  
31 8 in. pumps.  
2 6 ft. 8 in. flat bottom windbores.  
1 6 in. sinking windbore.  
3 8 in. doorpieces.  
2 11 ft. 7 in. working pieces.  
2 8 in. 11 pieces.  
1 8 in. plunger pole, stuffing box & gland.  
1 6 in. ditto.  
1 5 in. ditto.  
70 fms. of ladders, iron staves.  
30 fms. 7 in. wood rods.  
Strapping plates, with red pins complete.  
20 fms. 6 in. ditto.  
4 arm capstan and shears, with pulleys complete.  
60 fms. 5/8 chain.  
1 large 4 ft. pulley.  
75 fms. wire-rope.  
Shaft bob and stand complete, with 20 fms. 5 in. wood rod.  
A quantity of smiths' and mine tools, pick hammers, oil and tallow, and account-house furniture, and a variety of other materials and effects in general use in mines.  
Further particulars may be had on application to Mr. BELLINGHAM, the officer in possession; at the office of the Registrar of the said Court, in Truro; or to Messrs. HODGE, HOCKIN, AND MARRACK, Solicitors, Truro.  
Dated Registrar's Office, Truro, September 1, 1864.

## In Chancery.

**IN RE THE BRITISH ZINC ROLLING COMPANY (LIMITED),** ZINC ROLLING MILLS, with the NEWLY ERECTED PLANT and MACHINERY, situate in MACCLESFIELD STREET, CITY ROAD.

**MESSRS. FULLER AND HORSEY** have been appointed by the Master of the Rolls to SELL, BY AUCTION, on Wednesday, 7th September, 1864, at One o'clock precisely, at the Guildhall Coffee-house, Gresham-street, London, in One Lot, the LEASEHOLD INTEREST in the PREMISES, and the whole of the newly fitted PLANT and MACHINERY, by Galloway, of Manchester, capable of rolling 25 tons of zinc per week.

The BUILDINGS have been almost entirely re-built since 1862, and comprise a spacious, light, and lofty mill, paved with cast-iron flooring plates, and fitted with TWO PAIRS of 18 in. ROLLS, 48 in. wide, with massive driving gearing, one pair of shears, and ONE CIRCULAR CUTTING MACHINE, driven by a PAIR of 30 horse power HORIZONTAL STEAM ENGINES, on the compound principle, with PATENT STEAM BOILER, completed in the present year, by Galloway, of Manchester, TWO ZINC ROLLING MACHINES, MELTING and ANNEALING FURNACE, WEIGHING MACHINE, &c.  
The other erections comprise a lofty brick chimney shaft, offices for clerks and principal, stable for two horses, and loft, coach house, coal store, a large ground-floor store warehouse, smithy, foreman's office, and store room; an enclosed wharf and yard, with gateway entrance.

The premises are held on lease from the Regent's Canal Company, for a term of seven years, from 26th of March, 1862, subject to the rent of £150 per annum, and the Canal Company have consented to extend the term to an approved and responsible purchaser, so as to make it seven years from the present date.  
Particulars may be had of GEORGE PRICE, Esq., 17, Mark-lane; of Messrs. TERRELL and CHAMBERLAIN, solicitors, 30, Basinghall-street; and of Messrs. FULLER and HORSEY, 13, Billiter-street, London, E.C.

E. B. CHURCH, Chief Clerk.

## ST. HELEN'S, LANCASHIRE.

**TO BE LET, ON LEASE,** the extensive MANUFACTURING PREMISES, known as the RAVENHEAD COPPER SMELTING WORKS, situate at ST. HELEN'S, with a wharf on the canal, and a branch of the St. Helen's Railway running through the property.

The entire site is about 30 acres, of which about 5 acres are occupied by the works, the remainder being arable and pasture land.  
The buildings comprise a series of very substantially erected, light, and lofty ground-floor factories, arranged for the purpose of smelting and other manufacturing works, but they will be available for many other large manufacturing establishments, as they possess the advantages of direct communication by rail or water carriage with all parts of the kingdom.

Coals can be obtained from pits in the neighbourhood, at an almost nominal price, and labour is cheap and abundant.  
For particulars, apply to Messrs. FULLER and HORSEY, 13, Billiter-street, London, E.C.; and of Messrs. HARRISON and FINCH, 2, Gray's Inn, London.

## In Chancery.

VALUABLE AND IMPORTANT MINING ESTATE AND FARM.

**MR. JOSEPH COCKSEY WILL SELL, BY AUCTION** (pursuant to a decree of the High Court of Chancery made in a cause Lloyd v. Pearson, and with the approbation of the Master of the Rolls), at the Hon and Chancery Hotel, Birmingham, on Thursday, the 23rd September, 1864, at Two o'clock precisely.

A very DESIRABLE LEASEHOLD MINING PROPERTY, known as the LEY-CETT COLLIERY, situate in the parish of MADELEY, STAFFORDSHIRE, comprising the ungoten MINES OF COAL, IRONSTONE, and LIMESTONE in upwards of 4000 acres, and a FARM of about 70 acres (a part of the estates of Lord Crews), together with the COLLIERY PLANT and STOCK.

It is held under an agreement, dated the 12th day of March, 1857, made between Lord Crews of the one part and Daniel Pearson of the other part, for a lease for the term of 31 years, commencing from the 1st day of April, 1857, at a fixed mine rent for the colliery of £200 per annum, and a surface rent for any land not held as therein mentioned (required for colliery or other purposes) of £3 or £2 per acre per annum, according to the state of cultivation. And at the rent of £72 5s. per annum for the farm.

The property lies about three miles from the Madeley station of the London and North-Western Railway, and four miles from the Newcastle-under-Lyne station of the North Staffordshire Railway. A branch railway from the London and North-Western Railway, at a point near the Madeley station, has been constructed for the use of the colliery, through part of the estate.

The whole of the property will be sold in one lot, the implements, utensils, stock, and effects being paid for by the purchaser of the estate at a valuation, as stated in the conditions of sale.

The property may be viewed on application to Mr. DAVID PEACOCK, mine agent, Tipton; or to Mr. W. H. LLOYD, at the farm; and particulars and plans may be obtained of him; and of Mr. J. H. THURFIELD, solicitor, Wednesday; Messrs. S. F. MILLER and SON, solicitors, 10, Duke-street, St. James's; Messrs. BOURNE and OWEN, solicitors, Dudley; Messrs. CLOWS and HICKLEY, solicitors, Temple, London; at the North Staffordshire Hotel, Stoke-upon-Trent; or of the auctioneer, Paradise-street, West-bromwich; or at the place of sale.

JOHN WM. HAWKINS, Chief Clerk.

S. F. MILLER AND SON, Sussex Chambers, 10, Duke-street, St. James's, London (agents for John Hunt Thurstfield, of Wednesday, Staffordshire, plaintiff's solicitor).

**TO BE SOLD, THE LEASE OF AN EXCELLENT BARYTES MINE,** conveniently situated, near to BANTRY BAY, COUNTY CORK. The barytes is of good quality, and the vein 6 ft. wide and 40 ft. breast, laid dry by the present lease, who has driven a horse level up to it, so that large quantities can be produced and shipped at a very low price. Good facilities for manufacturing by water-power are available in the immediate neighbourhood.—For further particulars, apply to Mr. SAML. WESTON, Clarendon-place, Leeds; or to Mr. JNO. SAMSON, Schall, County Cork.

## PRELIMINARY ANNOUNCEMENT. PATENT ALKALI WORKS, ST. HELEN'S, LANCASHIRE. LARGE SALE OF BUILDINGS, MATERIALS, &c.

**MR. KIRK** respectfully announces that he is instructed to catalogue and SELL BY AUCTION, the latter end of the ensuing month of September, the WHOLE of the BUILDINGS of EVERY DESCRIPTION (in order that the whole may be taken down, removed, and the ground cleared) forming the EXTENSIVE WORKS known as the far-famed PATENT ALKALI WORKS, at ST. HELEN'S, LANCASHIRE, including EXTENSIVE RANGES of SUBSTANTIAL BRICK BUILDINGS, nine slated roofs of the very best Welsh slate, rafters, joists, beams, planking, &c., immense in quantity, and excellent in quality; cast and wrought ironwork in columns, girders, tie rods, &c.; lead flashings, gutters, sheets, &c.; flags, tiling, &c. Also, a 25 horse CONDENSING BEAM ENGINE, large cast-iron water tank, together with a vast assemblage of other valuable materials and effects.  
Full particulars in future advertisements and catalogues, which are in course of preparation, and will be ready shortly; and in the interim address the Auctioneer, at his offices, 8, Essex-street, King-street, Manchester.

## PRELIMINARY ANNOUNCEMENT.

**VULCAN WORKS, CHURCH, NEAR ACCRINGTON AND BLACKBURN.**  
**MR. KIRK** is favoured with instructions from the assignees of Mr. Lupton, roller maker, mechanist, &c., to arrange, catalogue, and SELL BY AUCTION, under a deed of assignment, for the benefit of the creditors, early in September, the VALUABLE TOOLS, UTENSILS, PLANT, MACHINERY, STEAM ENGINES, BOILERS, STOCK IN TRADE, &c., in the works, foundry, fitting shops, smiths' shops, stores, &c., on these extensive works.  
Full particulars of which will be given in detailed catalogues, which are being prepared, and will be ready shortly, and may be had of Messrs. HALL and BALDWIN, solicitors, Clitheroe; or of the Auctioneer, at his offices, 8, Essex-street, King-street, Manchester.

**MR. BRANCH WILL SELL, BY AUCTION** (by direction of the liquidators of the company), at the office of the BRADA UNITED MINING COMPANY (LIMITED), Fenwick Chambers, Liverpool, on Wednesday, the 21st day of September, 1864, at Half-past Two o'clock in the afternoon precisely, all those VALUABLE MINE VEINS, SHAMS, and BEDS OF LEAD, SILVER-LEAD, COPPER, and ZINC ORE, situate in the parish of RUSHEM, south-west end of the ISLE OF MAN, now the property of the Brada United Mining Company (Limited); and also all the VALUABLE MACHINERY and WORKING UTENSILS, and all other matters, and things the property of the said company, now in, upon, or about the mine.  
The mines are held under lease from the Crown, for the term of 21 years, from the 10th October, 1851, subject to certain rents and royalties.

The mines have been recently surveyed by two experienced Cornish miners, whose report is of a most encouraging character. This report can be seen on application, as mentioned below.  
The mines are offered for sale simply because the present proprietors are unable to find the necessary capital for working them.  
All further information may be obtained on application to Mr. JAMES MOORE, Fenwick Chambers, Liverpool, the secretary of the company; or to Messrs. STOCKLEY and WRIGHT, solicitors, 16, Castle-street, Liverpool.

**IMPORTANT SALE OF COLLIERY PLANT, POWERFUL WINDING AND PUMPING ENGINES, STEAM BOILERS, MALE CRABS AND GIN, LARGE PATENT METAL PULLEYS, 19-in. and 16-in. PUMPS, WIRE AND HEMP ROPES, MALLEABLE IRON PIT CAGES, SPEARS AND SPEAR PLATES, SIXTEEN HUNDRED YARDS OF RAILS, ASHLAR STONE, FIREBRICKS, SMITHS' TOOLS, &c., &c. FOR SALE BY AUCTION at CHILTON COLLIERY, FERRY HILL RAILWAY STATION, in the COUNTY OF DURHAM.**

**MR. GEORGE HARDCASTLE** has the honour to announce that he is instructed by the Trustees of the Right Hon. the Earl of Eider to SELL BY AUCTION, at the CHILTON COLLIERY, on Tuesday, October 4, 1864, all the VALUABLE WORKING PLANT, comprising—  
ONE NEW DOUBLE ACTION HORIZONTAL HIGH PRESSURE WINDING ENGINE, by Murray, of Chester-le-Street, with two 22-in. cylinders, 4-ft. stroke, metal fly-wheel, 18 ft. diameter, and metal drum, 8 ft. 9 in. by 4 ft.  
ONE HIGH PRESSURE PUMPING BEAM ENGINE, 40-in. cylinder, and 6-ft. stroke.

ONE HIGH PRESSURE WINDING ENGINE, 25-in. cylinder, 5-ft. stroke, with metal fly-wheel, 18 ft. diameter; rope rolls, 9 ft. diameter; and malleable iron crank.  
FIVE STEAM BOILERS—three 30 ft. long, two 25 ft. long, and all 6 ft. diameter.  
ONE SMALL BOILER, 8 ft. by 3 ft. 4 in.

TWO METAL PATENT PULLEYS, 10 ft. diameter, Mamel shear legs, pulley frame, and stays, brass carriages, &c.

Two new malleable iron pit cages, 7 ft. 6 in. long, 2 ft. 10 in. broad, and 4 ft. 6 in. deep; pit cradle and chains; new main crab, with oak main piece, 18 in. diameter; new jack gin, with 9-ft. drum, over trees, frames, and uprights; five 19-in. pumps, fourteen 16-in. pumps, and one tapering pump—all 10 ft. long; one 16-in. working barrel, 12 ft. 6 in. long; one bucket doorpiece, 6 ft. 6 in. long; one powerful three-throw horse crank force pump, 12-in. stroke, and 8-in. pumps—double powered winch and chain, red pine spears, malleable upper plates, bottom rods, bucket joints, buckets and clacks, pump bolts, cross bars, bucket door bars and bolts, leather hoppers, lead weaves, leather hose, pump and spear rollers; eight fire doors, fire bars, and boiler fire tools; two 3-in. round wire ropes, 60 fms. each; two 3-in. flat wire ropes, 60 fms. each; one 10-in. hemp crab rope; one 7-in. hemp jack rope, and sundry other ropes and falls; 1600 yards of malleable iron rails, from 40 lbs. to 80 lbs. per yard; chairs, crossings, and sleepers; patent tub weighing-machine; patent steam gauges; sundry metal pipes, from 4 to 6 in. diameter; pair of iron blocks for 4 1/2-in. rope; crane chain; smiths' vice, bellows, fullers, swages, tongs, and anvils; stone hammers, spears, shovels, adze blades, lead, and iron; a large quantity of masonry Ashlar freestone, "Newcastle" freestone, and fire-clay lumps; 3-in. and other planks, and sundry building materials, walls, rods, doors, windows, &c.

The sale to commence at 11 o'clock; luncheon for purchasers at 12; sale resumed at 1 P.M.—The Chilton Colliery is close to the North Eastern and the West Hartlepool Railways, with both of which it has locomotive connections.

**PAYMENTS.**—All payments to be made in cash.  
Catalogues to be had, on and after Friday, the 9th of September inst., upon application to JOHN JOHNSON, Esq., mining engineer, Tyneworth; Mr. BENJAMIN DAWES, South Hetton; or at the Sunderland Sale Offices.  
The Sunderland Sale Offices, Lambton-street, Sunderland, Sept. 1, 1864.

## MERIONETHSHIRE, NORTH WALES.

**TO BE DISPOSED OF, A SLATE QUARRY PROPERTY,** vein proved, and position commanding all advantages. Also, a VALUABLE GRANT, possessing a RICH SILVER-LEAD MINE, with other lodes, very favourable.—To treat for the same, apply to Mr. H. P. M. OWEN, C.E., Penrhyneddraeth, via Carnarvon.

MR. OWEN has OTHER MINES and QUARRIES TO DISPOSE OF. Also, begs to offer his services to gentlemen in all inspections of native mineral, with practical reports thereon. Immediate attention given.

**TO SPECULATORS AND CAPITALISTS.—TO BE LET,** ON LEASE, the SEAMS of COAL LYING UNDER ONE HUNDRED AND TWENTY TO ONE HUNDRED AND FIFTY ACRES OF LAND IN WARWICKSHIRE; and also therewith an old established TILERY and BRICK YARD, situated thereon, where there is an inexhaustible BED of FIRST QUALITY BLUE or IRON BRICK CLAY, adjoining to a main line of railway.—For particulars, address "A. Z. M., Post-office, Birmingham.

**RICH IRON, COPPER, LEAD, &c., ORES TO LET.**  
ALL PROVEN.—Hematite assays, 81 and 60 1/2 per cent.; apatite assay (1864), 32 per cent.; and richer ore sited on both these veins are contiguous, and are to be seen 10 to 80 ft. wide; they are on the shore; they show in great beauty 300 to 400 yards only inland. The descent is an easy incline to the sea. As some men of inexperience took surface samples (1000 years exposed) and assayed them, to the injury of the rich set, the proprietor has sunk and is sinking, and has proved the ore much richer every yard. The magnetic and titanium ores are in large veins, and the ore exposed; one vein is on the shore, and many yards wide, and this month a rich bed of hematite is seen overlaid by it; it extends two miles due west from the shore, and it can be put on board for 3d. or 6d. per ton. These ores will be let on the English system, by a bonus to lessen the royalty, or on the Scotch system, of no bonus and royalty fixed by an Edinburgh or Glasgow engineer. The copper and lead veins are cross-cut for inspection, and many of them lay close to the iron lodes. One lead lode is 9 feet wide. The gossans are very rich, and show a mile in length.—Apply to the proprietor, Mr. FOLLOLO, of Erins, Loughryne.

**SLATE QUARRIES.—TO BE LET, ALLT DINAS SLATE QUARRY,** situate in the parish of Llanfawr, in the county of Brecon, ten miles from Bulth, five from the intended railway station at Maesnefod on the Central Wales Railway, and six from the Mid Wales Railway at Newbridge.  
The slate vein runs up from the river to the top of the mountain, to a height of 611 ft., is about half a mile in length, and 200 yards in width.  
Four openings have been made in the vein, and although penetrated only to a few feet from the surface it produces good slates.

The slate is of good quality and fine texture, of bluish grey colour, the same as Lord Palmerston's quarry, Festiniog and Aberllefenny.  
The metal and quality of the slate is strong and durable, will bear carriage to any part of the world, and stands the heat necessary for enamelling perfectly.

There is room for tipping rubbish for centuries, and a plentiful supply of water at all times of the year.

Apply to J. PHAET, Esq., land agent, Crickhowell.

**COAL AND IRONSTONE MINE.—TO BE LET** ON LEASE, at a royalty, upwards of THIRTY ACRES of very VALUABLE MINES OF COAL AND IRONSTONE, at BRICKWORK, in the parish of WEST-BROMWICH, in the county of STAFFORD. These mines are adjoining those belonging to Messrs. Bagnall, at Golds Hill, on the one side, and those now being worked by and long to Benjamin Whitehouse, on the other.—For further particulars, and to treat, apply to Messrs. RAWLINS and ROWLEY, solicitors, Birmingham; or to Mr. J. SORTON, Tettenhall Wood, Wolverhampton.

**NEW COMBINED TURBINE. WINDING, AND PUMPING MACHINERY,** MANUFACTURED BY GEORGE LOW.

MILGATE IRONWORKS, NEWARK-UPON-TRENT.  
Who respectfully begs to bring the above to the notice of the mining public, as an exceedingly cheap and easy method of applying water-power for the above purposes.  
The TURBINE, WINDING, AND PUMPING MACHINERY are all fixed complete to one strong cast-iron bed plate, which can be placed in any situation without pit or excavation, and any height not exceeding 33 ft. from bottom of fall, the supply and suction pipe being all that is required to be connected to it, and can be brought in any direction.  
This combined machine can be easily removed when necessary.  
Method of applying water-power for mining purposes.

MANUFACTURER OF WINDING, PUMPING, CRUSHING, STAMPING MACHINERY, WINDING ENGINES, WATER WHEELS.  
IMPROVED TURBINE WATER WHEELS CONSTRUCTED EITHER TO WORK VERTICALLY OR HORIZONTALLY, and upon the MOST SCIENTIFIC and EFFICIENT PRINCIPLE.

G. Low begs to recommend a special class of turbine adapted for extreme high falls (300 to 500 ft.), and consuming small quantity of water. This turbine will work with equal advantage without running at an excessive velocity. Also,  
MANUFACTURER OF IMPROVED BORING MACHINES FOR DRIVING ADITS.



**NICHOLLS, WILLIAMS, AND CO., ENGINEERS,**  
REDFORD IRONWORKS, TAVISTOCK.  
MANUFACTURERS OF STEAM ENGINES OF EVERY DESCRIPTION, made on the BEST AND NEWEST PRINCIPLES. We beg more especially to call the attention of the public to the manufacture of our BOILERS, which have been tested by most of the leading engineers. PUMP WORK CASTINGS OF EVERY DESCRIPTION, both of brass and iron. HAMMERED IRON AND HEAVY SHAFTS OF ANY SIZE. CHAINS made of the best iron, and warranted. RAILWAY WORK OF EVERY DESCRIPTION.  
ALL ORDERS FOR ABROAD RECEIVE THEIR BEST ATTENTION. NICHOLLS, WILLIAMS, AND CO. have had 30 years' experience in supplying machinery to foreign countries, and selecting experienced workmen to erect the same, where required.  
Messrs. NICHOLLS, WILLIAMS, AND CO. have always a LARGE STOCK OF SECOND-HAND MINE MATERIALS in stock, and at moderate prices.

**ELLIS LEVER,**  
PATENTEE AND MANUFACTURER OF  
FLEXIBLE TUBING FOR MINES, AND COLLIERY  
BRATTLE CLOTH,  
WEST GORTON WORKS, MANCHESTER.

**TAVISTOCK IRONWORKS AND STEEL ORDNANCE COMPANY (LIMITED).**  
(LATE GILL AND CO.)  
ENGINEERS, IRON AND BRASS FOUNDEES,  
MANUFACTURERS OF  
STEAM ENGINES, BOILERS, AND MACHINERY OF ALL KINDS.  
CHAINS, SHOVELS, EDGE TOOLS, AND EVERY DESCRIPTION OF CAST  
AND HAMMERED IRON FOR MINING, MANUFACTURING,  
RAILWAY, OR AGRICULTURAL PURPOSES.  
Machinery sent to all parts of the world.  
Foreign mining companies supplied on liberal terms.

**CLAYTON, SHUTTLEWORTH, AND CO.,**  
ENGINEERS.  
MANUFACTURERS OF PORTABLE AND FIXED STEAM ENGINES, MACHINERY FOR PUMPING, HOISTING, GRINDING, SAWING, &c., ENGINES FOR STEAM CULTIVATION, SELF MOVING ENGINES FOR COMMON ROADS, AND AGRICULTURAL PURPOSES GENERALLY.  
STAMP END WORKS, LINCOLN; and  
78, LOMBARD STREET, LONDON.

ALSO AT  
LOWENASSE No. 44, LANDSTRASSE, VIENNA, and GEGENUEBER DEM  
BAHNHOF, PESTH.  
Descriptive, illustrated, and priced catalogues free per post.  
SPECIAL DRAWINGS WHEN REQUIRED.  
THE BEST STEAM THRASHING MACHINERY MADE.

**GARNOCK, BIBBY, AND CO.,**  
CHAPEL STREET, LIVERPOOL.  
MANUFACTURERS OF FLAT AND ROUND HEMP AND IRON AND STEEL WIRE  
ROPE FOR MINING, RAILWAY, AND SHIPPING PURPOSES.  
MANILLA ROPE OF SUPERIOR QUALITY, FIFTY PER CENT. STRONGER,  
AND THIRTY PER CENT. CHEAPER than Russian hemp rope.  
WIRE ROPE OF FIRST QUALITY WIRE, and the HIGHEST STANDARD OF  
STRENGTH.

**WEIGHING MACHINERY**  
CONSISTING OF  
PLATFORM WEIGHING MACHINES AND HIND'S PATENT RAIL AND ROAD  
WEIGHBRIDGES, overhead TRAVELLING WEIGHING CRANES AND CRABS,  
RAILWAY WEIGHING TURNABLES, &c.  
CRANES  
Of the WALL, PILLAR, PORTABLE, or TRAVELLING KINDS; and CRABS AND  
WINCHES FOR STEAM OR HAND POWER, &c. Also, TURNABLES, WATER  
COLUMNS, TANKS, AND PUMPING MACHINERY, and GENERAL RAILWAY  
PLANT, manufactured by  
**RICHARD KITCHIN, ENGINEER AND IRONFOUNDER,**  
SCOTLAND BANK IRONWORKS, WARRINGTON.

**Patent Medals Awarded Great Exhibition, 1851, and  
International Exhibition, 1862.**  
**PATENT SAFETY FUZE WORKS, TUCKINGMILL,**  
CORNWALL.—We beg respectfully to inform the public that since the decease  
of the late Mr. THOMAS DAVEY this firm has consisted of JOHN SOLOMON BICKFORD,  
GEOFFREY SMITH, FRANCIS PRYOR, SIMON DAVEY, and WILLIAM BICKFORD SMITH. It is  
requested that all letters may be addressed, and all cheques and drafts made payable to  
us, as  
BICKFORD, SMITH, AND CO.

**SAFETY FUZE.—Messrs. WILLIAM BRUNTON AND CO.,**  
SHEFFIELD, POOL, near CAMBORNE, CORNWALL, and BRYMBO, near  
WREXHAM, MANUFACTURERS OF FUZE, of every size and length, as exhibited  
in the Great Exhibition of 1851, and supplied to the Royal Arsenal at Woolwich, the  
Arctic Expedition, and every part of the globe.  
For the convenience of their customers and others in the North, W. BRUNTON and Co.  
have recently erected a branch manufactory at Brymbo, near Wrexham, where, as at  
Cornwall, they are at all times PREPARED TO EXECUTE UNLIMITED ORDERS  
FOR SUPPLYING FUZE upon warrant that it will prove equal to, if not better than  
any to be procured elsewhere.

**THE UNITY PATENT SAFETY FUZE COMPANY**  
SCORRIER, CORNWALL, SOLICIT ORDERS for the DIFFERENT KINDS  
OF SAFETY FUZE which they are PREPARED TO SUPPLY, of SUPERIOR QUALITY,  
and of ANY LENGTH.

**EDWARDS'S PATENT MINERAL ORE AND COAL  
WASHING MACHINE.**—This is by far the MOST ECONOMICAL, as well as  
the MOST PERFECT MACHINE MADE. Each machine is capable of washing 25  
to 30 tons per day, according to quality.—Full particulars, testimonials, &c., may be  
obtained from E. EDWARDS, Esq., C.E., 1, York-buildings, Adelphi, where a working  
model may be seen.

**COAL CUTTING MACHINERY.**—  
The WEST ARDSLEY COMPANY having, by recently patented improvements,  
perfected their coal cutting machinery, worked by compressed air, are NOW READY  
TO MAKE CONTRACTS for the CONSTRUCTION AND USE of their MACHINES.  
The results of twelve months' experience in the working of these machines, by the  
West Ardsley Company, have proved most satisfactory, their use being found to  
CHIEFLY THE COST AND IMPROVE THE AVERAGE SIZE OF THE COAL, TO LIGHTEN  
THE LABOUR, and also TO MODIFY THE SANITARY CONDITION OF THE MINE.  
All communications to be made to Messrs. FIRTH, DOWNSHOPPE, and BOWEN, No. 5,  
Bathurst-street, Leeds.

**NOTICE.—The WEST ARDSLEY COMPANY, having reason  
to believe that their patents are being infringed upon, hereby give notice that  
they will TAKE LEGAL PROCEEDINGS AGAINST ALL PARTIES who may  
MAKE FOR SALE, or USE ANY MACHINERY in the construction of which any  
such INFRINGEMENT is MADE.**

**TO IRON AND COAL MASTERS, MINING AND QUARRY COMPANIES, &c.**  
IMPROVED BLACK VARNISH,  
FOR PREVENTING IRON FROM RUST, AND WOOD FROM DECAY.

**BRILLIANT JET BLACK, SUPERIOR TO PAINT IN  
APPEARANCE, dries in less time, contains preservative qualities of the best  
description, and is economical in its use; one gallon, at 1s., is equal to 14 lbs. of paint,  
which costs 4s. For COLLIERY HEAD GEARING, RAILWAY WAGONS, BOILERS, CASTINGS,  
CANAL BOATS, &c., it is especially adapted. In casks containing 10, 15, and 20 cwt.  
each. In quantities of 1 ton and upwards, price £11 per ton.**

**TURPENTINE SUBSTITUTE.**  
GLOVER and Co. have now on hand a really splendid painting sample of spirits of turpentine  
substitute, a pure crystal, not more volatile than the genuine American turpentine,  
and quite inoffensive to smell. Price, 2s. per gallon, in 30-gallon casks.

**PETROLEUM.**  
This oil gives a pure, white, soft, and brilliant light, easily regulated, and portable.  
For works or public buildings, where gas is not desirable, the brilliancy and economy  
of the article are unequalled.

**WASTE NO OIL.**  
STRONG IRON OIL CISTERNS,  
Not liable to leak, and which economise space in the stores. From 600 gallons, 48  
diameter by 84 in height, price £10 10s., down to 10 gallons, 15 diameter by 21 in height,  
price 15s., WITH EVERY VARIETY OF SIZE AND PRICE BETWEEN.

**STRONG IRON BUCKETS.**  
½ galls. .. 4s. 6d. | 3 galls. .... 5s. 0d. | 3½ galls. .. 5s. 6d. | 4 galls. .... 5s. 0d.  
WAGON GREASE.

**GLOVER AND CO., No. 40, MANESTY LANE, LIVERPOOL.**  
THE BANKING, MINING, AND JOINT-STOCK COMPANIES REVIEW,  
A JOURNAL OF COMMERCE, TRADE AND MANUFACTURE,  
SCIENCE AND THE ARTS.

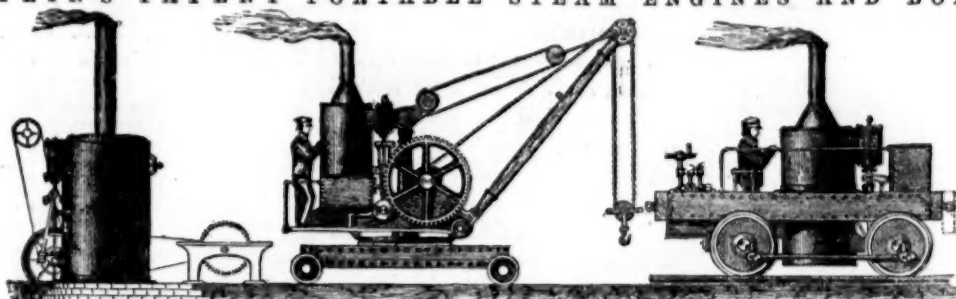
Published every Wednesday. Subscription, £1 1s. annually. Price 6d. stamped.

**RAILWAYS AND MINES**  
Capitalists who seek safe and profitable investments, free from risk, should act only  
upon the soundest information. The market prices for the day are for the most part go-  
vernment by the immediate supply and demand, and the operations of speculators, without re-  
ference to the bona fide merits of the property. Railways depend upon the traffic, expan-  
sion, and capital accounts, the probabilities of alliance or competition with neighbouring  
companies, the creation of new shares, the state of the money market as affecting the re-  
newal of debentures, and other considerations founded on data to which those only can have  
access who give special attention to the subject. Mines afford a wider range for profit than  
any other public securities. The best are free from debt, have large reserves, and pay di-  
vidends bi-monthly varying from 4½ to 5½ per cent. per annum. Instances frequently  
occur of young mines rising in value 400 or 500 per cent. But this class of security,  
more than any other, should be purchased only upon the most reliable information. The  
undersigned devote special attention to railways and mines, afford every information to  
capitalists, and effect purchases and sales upon the best possible terms. Thirty years'  
experience in mining pursuits justifies us in offering our advice to the uninitiated in se-  
lecting mines for investment; we will, therefore, forward, upon receipt of Post-office  
order for 5s., the names of six dividend and six progressive companies that will, in our  
opinion, well repay capitalists for money employed.

**MANNA, TREDNICK AND CO., STOCK AND SHAREBROKERS, AND DEALERS  
IN BRITISH MINING SHARES, 78, LOMBARD STREET, E.C.**

## CHAPLIN'S PATENT PORTABLE STEAM ENGINES AND BOILERS.

Prize Medal, International Exhibition, 1862.



STATIONARY ENGINE.

PORTABLE STEAM CRANE.

CONTRACTORS' LOCOMOTIVE.

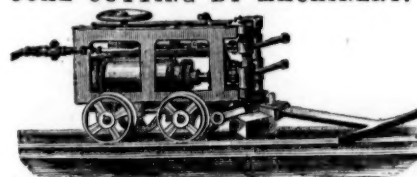
From the STRENGTH, SIMPLICITY, and COMPACTNESS of these ENGINES, they are now extensively used for general purposes; also in situations where steam-engines of the ordinary construction cannot be applied.  
STATIONARY ENGINES,—require no building in, nor chimney stalk, and with our patent forced combustion apparatus will burn inferior qualities of coal, wood, or peats. These engines are specially suited for shipment, and may be packed inside the boiler, to economise freight.  
PORTABLE STEAM CRANES,—for wharf or railway, with wrought-iron carriages on wheels, link motion, foot brake, &c., all under the easy control of one man; the larger sizes hoist, lower, and turn round in either direction by steam.—These Cranes were selected by H.M. Commissioners for receiving and sending away the heavy machinery at the International Exhibition of 1862.  
CONTRACTORS' LOCOMOTIVES,—are adapted to work on rails or tramways, of a gauge from 2 feet upwards. They are complete and efficient locomotives, simple in construction, and the working parts easily got at for repair. They draw heavy loads at reduced speeds. These engines are usually sent in one package, ready for work on arrival.  
LIGHT PORTABLE HOISTING, WINDING, AND PUMPING ENGINES, ETC.

**ALEXANDER CHAPLIN AND CO., CRANSTONHILL ENGINE WORKS, GLASGOW.**

LONDON OFFICE,—9, ADAM STREET, ADELPHI, W.C. LONDON DEPOT AND WHARF,—LOWER FORE STREET, LAMBETH, S.

Several engines of each class kept in stock, for sale or hire; and all our manufactures guaranteed as to EFFICIENCY, MATERIAL, and WORKMANSHIP.  
Parties are cautioned against using or purchasing imitations or infringements of these patent manufactures.

## COAL CUTTING BY MACHINERY.



**MESSRS. RIDLEY AND CO. have, by recently PATENTED  
IMPROVEMENTS, COMPLETED their TRUNK COAL CUTTING  
MACHINE, WORKED BY COMPRESSED AIR, and are NOW PREPARED TO NE-  
GOCIATE for the USE, and to SUPPLY MACHINES, which will be found to  
COMBINE SIMPLICITY OF CONSTRUCTION WITH PORTABILITY and ECONOMY  
IN WORKING. By the use of these machines a CONSIDERABLE SAVING OF COAL  
IS EFFECTED, and the COST OF LABOUR MUCH REDUCED. Each machine will  
be guaranteed as to its capabilities, &c.**

All applications to be made to Messrs. RIDLEY and Co., No. 11, South-street, Finsbury  
London, E.C.; or Mr. FRANK HAWKART, agent, 9, Clement's-lane, E.C.  
COLLIERY PROPRIETORS are CAUTIONED against PURCHASING or  
USING MACHINES, the construction of which will constitute an INFRINGEMENT  
of the ABOVE PATENT.

## Gun Cotton Manufactory.

**MESSRS. THOMAS PRENTICE AND CO.,**  
GREAT EASTERN CHEMICAL WORKS, STOWMARKET, SUFFOLK.

This manufactory has been established for the purpose of preparing GUN COTTON,  
according to the Austrian process, and was opened on the 26th of January last, under  
the inspection of Baron Lenk. Messrs. Thomas Prentice and Co. are now able to  
SUPPLY GUN COTTON, in its most approved form, either for the purposes of en-  
gineering and mining, or for military and submarine explosion, and for the service  
of artillery, as a substitute for gunpowder.

The advantages of Baron Lenk's GUN COTTON are the following:—  
FOR PURPOSES OF ARTILLERY.—The same initial velocity of the projectile can be ob-  
tained by a charge of gun cotton one-fourth of the weight of gunpowder. There is no  
smoke from the explosion of gun cotton; it does not foul the gun, nor heat it to the in-  
jurious degree of gunpowder. There is much smaller recoil of the gun. The same initial  
velocity of projectile is produced, with a shorter length of barrel. In projectiles of the  
nature of explosive shells it breaks the shell more equally into much more numerous  
pieces than gunpowder. When used in shells, one-third the weight of gun cotton pro-  
duces double the explosive force of gunpowder.

FOR CIVIL ENGINEERING AND MINING.—In driving tunnels through hard rock a charge  
of gun cotton of given size exerts double the explosive force of gunpowder, thus a smaller  
number of holes is necessary. It may be so used as, in its explosion, to reduce the rock  
to much smaller pieces than gunpowder, and so facilitate its removal. As gun cotton  
produces no smoke, the work can proceed much more rapidly, and with less injury to the  
health of the miners. In working coal mines the advantages of bringing down much  
larger quantities of material with a given charge, and the absence of smoke in the ex-  
plosion, enable a much greater quantity of work to be done in a given time at a given  
cost. The weight of gun cotton required to produce a given effect in mining is only  
one-sixth part of the weight of gunpowder. In blasting rock under water the wider range  
and greater force of a given charge is a great element in cheapening the cost of submarine  
work. The peculiar local action of gun cotton, to which the effects of gunpowder show  
no analogy, enables the engineer to destroy and remove submarine stones and rocks,  
without the preliminary delay and expense of boring chambers for the charge.

FOR MILITARY ENGINEERING.—The facility of transport is increased, the weight of  
gun cotton being one-sixth that of gunpowder. The peculiar local action of gun cotton  
facilitates the destruction of bridges and palisades, and every obstacle. For subma-  
rine explosion, gun cotton has the advantage of a much wider range of destructive  
power than gunpowder. For the same purpose gun cotton, from its lightness, has the ad-  
vantage of keeping afloat the water-tight case in which it is contained, while gunpowder  
sinks to the bottom.

FOR NAVAL WARFARE.—In the batteries of ships, between decks, and in casemated  
forts, the absence of smoke facilitates continuous rapid firing. The absence of fouling  
and of heating are equally advantageous for naval as for military artillery.  
GENERAL ADVANTAGES.—Time, damp, and exposure do not alter the qualities of the  
gun cotton. It has already been preserved 10 years without injury or decay.  
It can be transported through fire without danger, simply by being wetted, and when  
dried in the open air it becomes as good as before. In the case of a ship, or a fortress, or  
a city being on fire, this quality may be of the greatest value. It is much safer than  
gunpowder, owing to its being manufactured in the shape of rope or yarn. It cannot escape  
from its package, or be spilled by accident. The patent gun cotton is entirely free from  
the danger of spontaneous combustion, and secures that degree of safety and certainty  
which, at the time of the original invention, the gun cotton of Schönböhm did not possess.

Messrs. THOMAS PRENTICE and Co. are now in a position to contract with the owners  
of mines, engineers, contractors, and governments for gun cotton prepared in the various  
forms required for their use. Mining charges will be supplied in the rope form, accord-  
ing to the diameters of bore required, and gun cotton match-line, as well as instructions  
for using it in mines, will be supplied with it.

The great advantage of gun cotton make its use in practice very much cheaper than  
its comparative price would appear to show; in blasting rock, for example, the rapidity  
and quantity of the work done, with a given expense of wages, &c., is largely in favour  
of gun cotton.

Messrs. THOMAS PRENTICE and Co. are also prepared to manufacture the gun cotton,  
and deliver it in the form of gun cartridges, adapted to every description of ammunition;  
all they require for this purpose being a drawing of the gun, gunpowder cartridges, and  
ammunition, with the specification of weights, sizes, and initial velocities.  
Artillerists who prefer to manufacture their own cartridges may make special arrange-  
ments with the patentees through Messrs. PRENTICE and Co.  
Stowmarket, March 10, 1864.

**CHARLES DAVEY AND CO.,**  
SAFETY FUZE MANUFACTURERS,  
ST. HELEN'S JUNCTION, LANCASHIRE.

**CREASE'S PATENT EXCAVATING MACHINERY.**  
FOR SUPERSEDING THE SLOW AND EXPENSIVE USE OF MANUAL LABOUR  
IN SINKING SHAFTS, DRIVING LEVELS, TUNNELLING, &c., is guaranteed to  
drive through any rock of average hardness at a minimum rate of 1 ft. per day, and  
to sink shafts at the rate of 2 fms. in three days.

Mr. CREASE will undertake contracts for sinking shafts, driving levels, &c., at an en-  
ormous reduction of time and great saving in cost.  
Applications to be addressed (for the present) to the patentee, Mr. E. S. CREASE,  
Tavistock, Devon.

**BASTIER'S PATENT CHAIN PUMP.**  
APPARATUS FOR RAISING WATER ECONOMICALLY, ESPECIALLY  
APPLICABLE TO ALL KINDS OF MINES, DRAINAGE, WELLS, MARINE,  
FIRE, &c.

J. U. BASTIER begs to call the attention of proprietors of mines, engineers, architects  
armers, and the public in general, to his new pump, the cheapest and most efficient ever  
introduced to public notice. The principle of this new pump is simple and effective, and  
its action is so arranged that accidental breakage is impossible. It occupies less space  
than any other kind of pump in use, does not interfere with the working of the shafts,  
and unites lightness with a degree of durability almost imperishable. By means of this  
hydraulic machine water can be raised economically from wells of any depth; it can be  
worked either by steam-engine or any other motive power, by quick or slow motion.  
The following statement presents some of the results obtained by this hydraulic machine,  
as daily demonstrated by use:—  
1.—It utilizes from 90 to 92 per cent. of the motive power.  
2.—Its price and expense of installation is 75 per cent. less than the usual pumps em-  
ployed for mining purposes.  
3.—It occupies a very small space.  
4.—It raises water from any depth with the same facility and economy.  
5.—It raises with the water, and without the slightest injury to the apparatus, sand,  
mud, wood, stone, and every object of a smaller diameter than its tube.  
6.—It is easily removed, and requires no cleaning or attention.

J. U. BASTIER, sole manufacturer, will CONTRACT TO ERECT his PATENT PUMP  
AT HIS OWN EXPENSE, and will GUARANTEE IT FOR ONE YEAR, or will  
GRANT LICENSES to manufacturers, mining proprietors, and others, for the USE  
of his INVENTION.

OFFICES, 47, WARREN STREET, FITZROY SQUARE,  
London, March 21, 1864. Hours from Ten till Four. J. U. BASTIER C.E.

## International Exhibition, 1862—Prize Medal.



**JAMES RUSSELL AND SONS**  
(the original patentees and first makers of wrought-iron  
tubes), of the CROWN PATENT TUBE WORKS, WED-  
NESBURY, STAFFORDSHIRE, have been AWARDED A  
PRIZE MEDAL for the "good work" displayed in their  
wrought-iron tubes and fittings.  
Warehouse, 81, Upper Ground-street, London, S.

**MESSRS. KNOWLES AND BUXTON, CHESTERFIELD.**  
MANUFACTURERS OF PATENT TUBULAR TUYERES.



The PATENT TUBULAR TUYERE possesses GREAT ADVANTAGES over the  
ORDINARY TUYERES, both for its DURABILITY and EASY WORKING. A cur-  
rent of cold water going direct to the nozzle prevents their destruction, however much  
they may be exposed to the fire.  
We repair them at half the first cost, making them equal in size to new ones, all par-  
ties returning them carriage paid.

No. 1 tuyere, 16 in. long	25s. each.
No. 2 " 18 " "	32s. "
No. 3 " 20 " "	36s. "
No. 4 " 22 " "	40s. "
No. 5 " 24 " "	44s. "

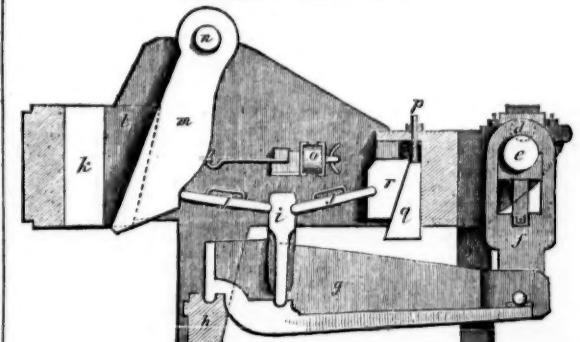
Delivered at Chesterfield station. Terms, nett cash quarterly.

**THOMAS TURTON AND SONS.**

MANUFACTURERS OF  
CAST STEEL FOR PUNCHES, TAPS, and DIES,  
TURNING TOOLS, CHISELS, &c.  
CAST STEEL PISTON RODS, CRANK PINS, CON-  
NECTING RODS, STRAIGHT AND CRANK AXLES,  
SHAFTS, and  
FORGINGS OF EVERY DESCRIPTION.  
DOUBLE SHEAR STEEL, FILES MARKED  
BLISTER STEEL, T. TURTON.  
SPRING STEEL, EDGE TOOLS MARKED  
GERMAN STEEL, WM. GREAVES & SON.  
Locomotive Engine, Railway Carriage and Wagon  
Springs and Buffers.

**SHEAF WORKS AND SPRING WORKS, SHEFFIELD.**  
LONDON WAREHOUSE,—35, QUEEN STREET, CANNON STREET, CITY, E.C.  
where the largest stock in the world may be selected from.

**BLAKE'S PATENT STONE BREAKER,**  
OR ORE CRUSHING MACHINE,  
FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND  
MINERALS OF EVERY KIND.



It is rapidly making its way to all parts of the globe, being now in profitable use in  
California, Washoe, Lake Superior, Australia, Cuba, Chili, Brazil, and throughout the  
United States and England.

The above section illustrates Blake's Stone Breaker, just as made the last five years,  
and is fully protected in every part by patents.

Extract from Specification:—A short but powerful vibration is imparted to one or  
both of the jaws by any convenient arrangement, and combination of powerful levers,  
worked by a crank or eccentric on the main shaft.

LEGAL PROCEEDINGS will be taken at once against any person or persons found  
making, using, or vending any machine, the construction of which will constitute an in-  
fringement on the above patent. Read extracts of testimonials:—

*Alkali Works, near Wednesbury.*—I at first thought the outlay too much for so simple  
an article, but now think it money well spent. WILLIAM HUNT.  
*Welsh Gold Mining Company, Dolgelly.*—The stone breaker does its work admirably,  
crushing the hardest stones and quartz. WM. DANIEL.  
Our 15 by 7 in. machine has broken 4 tons of hard wistone in 20 minutes, for fine  
road metal, free from dust. Messrs. OUD and MADDOCK.

*Stone and Lime Merchants, Darlington.*  
*Kirkless Hall, near Wigan.*—Each of my machines breaks from 100 to 120 tons of  
limestone or ore per day (10 hours), at a saving of 4d. per ton. JOHN LANGESTER.  
*Ovoca, Ireland.*—My crusher does its work most satisfactorily. It will break 10 tons  
of the hardest copper ore stone per hour. WM. G. ROBERTS.

*General Frémont's Mines, California.*—The 15 by 7 in. machine effects a saving of  
the labour of about 30 men, or \$75 per day. The high estimation in which we hold  
your invention is shown by the fact that Mr. Park has just ordered a third machine for  
this estate. SILAS WILLIAMS.

For circulars and testimonials, apply to—  
**H. R. MARSDEN, SOHO FOUNDRY,**  
MEADOW LANE, LEEDS.  
Only maker in the United Kingdom.

**THE NEWCASTLE CHRONICLE AND NORTHERN  
COUNTIES ADVERTISER.** (ESTABLISHED 1764).  
Published every Saturday, price 2d., or quarterly 2s. 2d.

Offices, 42, Grey-street, Newcastle-upon-Tyne; 50, Howard-street, North Shields;  
195, High-street, Sunderland.

**READ THE NEW MEDICAL GUIDE,** written by a Physician,  
for the Self Cure of Nervousness, Indigestion, Loss of Memory, Dimness of Sight,  
Lassitude, &c. This work is illustrated with hundreds of cases and testimonials from  
patients, showing the treatment by which they were cured. Free by post to any ad-  
dress, on receipt of a stamped directed envelope.—Address to Messrs. SMITH, 8, Burton  
crenant, Tavistock-square London, W.C.

**DR. WATSON, F.R.S.** (of the Lock Hospital, and College of  
Physicians and Surgeons) on the Self Cure of Nervous and Physical Debility,  
Spermatorrhoea, Decline of Manly Vigour, and Diseases of Indiscretion, with Means for  
Perfect Restoration, free for six stamps, by Dr. WATSON, 1, South-crescent, Bedford-  
square, London. Consultation daily from Eleven till Two and Six till Eight. Sunday,  
Ten till Twelve.



Share.	Mines.	Paid.	Last Pr.	Sw. desc.	Int.
6000	North Chiliverton (lead)	1 0 0.	2 3 4.	2 3 4.	Int.
16000	North Devon (sil.-id.) [L. £1]	1 0 0.	2 3 4.	2 3 4.	Int.
5000	N. Dolcoath (cop.), Camborne	3 1 6.	2 3 4.	2 3 4.	Int.
6000	North Downs (cop.) Redruth	2 13 4.	1 3 4.	1 3 4.	Int.
2600	North Frances (cop.)	13 17 6.	1 3 4.	1 3 4.	Int.
2600	Nth. Golch Hill (lead), Flint.	0 10 0.	—	—	Int.
1366	N. Granber (cop.), Redruth	4 7 6.	—	—	Int.
—	North Gw. (sil.-id.), Gernoe	0 6 6.	—	—	Int.
—	N. Gt. Work, Barm. [L. £2]	0 0.	—	—	Int.
16000	N. Hattenbeagle [8000 £1 pd., 8000 8s. pd.]	0 0.	—	—	Int.
6000	North Jane (tin, silver-lead)	2 9 6.	—	—	Int.
8000	N. Levant (tin, cop., St. Just	8 13 0.	—	—	Int.
20000	N. Minera (id.) [16000 £1 pd., 5000 10s. pd.]	—	—	—	Int.
4000	N. Phoenix (cop.) Linkinghome	4 4 0.	—	—	Int.
—	No. Pool (tin & cop.) Illogan	1 15 8.	—	—	Int.
700	North Rosewarne (copper)	31 5 0.	18	—	Int.
9144	North Rosewarne (copper)	2 0 0.	22 34	—	Int.
2000	N. Shephards (sil.-id.), Newlyn	2 0 0.	—	—	Int.
6000	N. W. Bassett (cop.) [S.E.]	4 2 6.	2 3 4.	2 3 4.	Int.
6610	N. Wh. Crofty (cop.) [S.E.]	2 10 6.	2 3 4.	2 3 4.	Int.
6144	N. Wh. Robert, Samp. Spiney	3 12 11.	—	—	Int.
5000	N. Wh. Seton, Camborne [L. £25]	2 10 0.	—	—	Int.
13228	Rel Tor (cop.), Cuckoo	2 10 0.	—	—	Int.
1000	Pant-y-Fry (lead)	4 7 6.	—	—	Int.
8465	Pedn-an-drea (tin), Redruth	4 7 6.	—	—	Int.
6000	Pendean Cons. (cop., St. Just	2 0 0.	2 3 4.	2 3 4.	Int.
5000	Penhalls (tin), St. Agnes	2 16 0.	—	—	Int.
812	Penhalow Moor (silver-lead)	3 0 0.	—	—	Int.
5000	Pennalt (sil. id.), Merion [L.]	2 7 0.	—	—	Int.
6000	Pentre Lygan (lead), [L. £30]	22 10 0.	—	—	Int.
6000	Pochnigey (tin), Wendron	1 18 0.	—	—	Int.
12800	Prince of Wales (tin), Calston	1 0 0.	—	—	Int.
5000	Princess of Wales (tin), Sanced	1 0 0.	—	—	Int.
6000	Prosper Uni. (tin, cop., St. Hilary	7 1 6.	—	—	Int.
10156	Redmoor (tin, tin), Callington	0 14 6.	2 3 4.	2 3 4.	Int.
612	Retanna Hill (tin), Wendron	2 17 6.	—	—	Int.
5000	Rhafna (lead), Cardigan [L. £1]	0 10 0.	—	—	Int.
4006	Rhaleon E. Wh. Rose (sil.-id.)	—	2	1 3 4.	Int.
6000	Rhobrough (tin), Redruth	1 0 0.	—	—	Int.
4026	Rosewarne Consols (copper)	4 11 0.	—	—	Int.
2648	Rosewarne United (cop., tin)	3 12 9.	—	—	Int.
6000	Roekark (copper), Camborne	0 10 0.	—	—	Int.
700	Roekarknowth (cop.), Camborne	1 10 0.	—	—	Int.
2000	Scorrier Con. (tin, cop., St. Agnes	4 13 6.	—	—	Int.
800	Seleginas, Montgomery [L. £25]	6 0 0.	—	—	Int.
12500	Silver Moon. (lead) [L.]	—	—	—	Int.
20000	St. Vein, St. Wendron [L. £500 pd.]	—	—	—	Int.
4096	Sithney Wheel Metal (tin)	10 10 0.	—	—	Int.
12000	Sordridge Cons. (cop.) [S.E.]	1 1 0.	—	—	Int.
6000	St. Alfred (cop.), Phill. & Gwin.	0 12 6.	—	—	Int.
512	South Bassett (cop.), Gwennap	16 10 8.	6 1 4.	6 1 4.	Int.
100	South Bryn Gwlog (lead)	7 0 0.	—	—	Int.
6000	St. Buller (copper), Gwennap	0 14 0.	—	—	Int.
4006	S. Cardarvan Wh. Hooper (cop.)	3 13 6.	—	—	Int.
6000	S. Carn Llan, Gwennap	2 10 0.	—	—	Int.
6138	S. Candarrow (tin, cop., Cam)	2 12 0.	1 3 4.	2 3 4.	Int.
2283	St. Crenver (cop.), Crowth.	12 9 0.	—	—	Int.
6000	South Darren (id.) [L. £2 3 4]	3 4 6.	—	—	Int.
6000	S. Dolcoath & Carnarthen Con.	2 13 0.	—	—	Int.
5000	S. Foxdale (id.) [L. of Man] [L. £5]	2 0 0.	—	—	Int.
2000	South Goriand (cop.), St. Day	4 10 0.	—	—	Int.
2000	South Grylls (copper) [L.]	6 0 0.	—	—	Int.
1024	Horocott (tin), Liskard	6 0 0.	—	—	Int.
96	South Kilmorye (lead)	23 10 0.	—	—	Int.
2000	South Lovell (tin), Wendron	2 0 0.	2 3 4.	2 3 4.	Int.
4000	S. Minera (lead) [L. £2 3 4]	4 0 0.	—	—	Int.
96	South Pant-y-Got (lead)	27 0 0.	—	—	Int.

[illegible]

4216	W. Great Work (tin), Germoe	1 6 6.	--	--	..
4200	W. Grylls (tin), Fernaunthoe	0 4 0.	--	--	..
2000	W. Maria & Fortescue, Lamerton	1 0 0.	--	--	..
5000	West Nanty (tesq.) [L.]	0 0 0.	--	--	..
19008	West Park (cop.) [L.]	2 17 0.	--	--	..
5000	West Rose Down (cop.)	11 12 6.	--	--	..
266	West Sharp Tor (cop.) [Rillaton]	161 0 0.	--	--	..
10056	West Stray Park (cop.) [Camb.]	9 11 6.	--	--	..
4152	West Tolgus (cop.)	38 10 0.	--	--	..
5451	West Trevelyan (tin, copper)	4 3 10.	--	--	..
4152	West W. Frances (cop.) [Flo. 92]	0 0 0.	98	--	30 85
9017	West Wood (cop.) [L.]	15 0 0.	--	--	..
0010	West W. Kitty (tin), St. Agnes	0 7 0.	--	--	..
5000	W. Wh. Martha (cop. & sil.) [L. & S.]	1 5 0.	--	--	..
4096	West Wheal Vor (tin)	1 10 0.	--	--	..
6000	Wheal Agar (copper), Illogan	5 0 0.	--	--	..
5990	Wh. Arthur (cop.) [Calstock]	4 6 6.	--	--	..
266	Wheal Buller, Redruth [S. E.]	21 0 0.	30	--	18 30
6000	Wh. Caradon (cop.)	0 0 0.	--	--	..
6000	Wh. Caradon (cop.) [Marazion]	0 1 0.	--	--	1 1/2
6000	Wheal Carna (cop.)	8 13 4.	7	--	7 1/2 8
8000	Wheal Crebhor (cop.) [Tavistock]	1 13 0.	3 1/2	--	..
6000	Wheal Crofty (cop.) [Illogan]	1 7 6.	296.	--	1 1/2 1 1/2
6144	Wh. Damsel (cop. tin), Gwennap	2 16 0.	--	--	..
4096	Wh. Edward (cop.) [Calstock]	8 10 6.	1 1/2	--	..

1024	Wheel Emu (mpy) B&B&C (copper)	3	2	6	..	..	..
4000	Wn. Emma (copper) B&B&C (copper)	3	2	6	..	..	..
2000	Wheel Falmouth & Sperris	6	11	0	..	..	..
4000	Wn. Grenville (copper) [S.E.]	8	14	0	..	7 1/2	7 3/4
6130	Wn. Harriett (cop.), Camborne	4	6	6	..	..	..
6000	Wheel Hartley (cop.), Gwinnar	1	2	6	..	..	..
6348	Wheel Hearle (tin), St. Just.	3	5	0	..	..	..
4048	Wheel Hope (sil.-ld.), Perran	3	15	0	..	..	..
4000	Wheel Ida (sil.-lead), St. Ives.	0	3	0	..	..	..

9698	Wm. Ludcott and Wrey (lead)	3	14	8	..	..
9698	Wheal Margery (tin, copper)	20	6	10	..	..
10006	Wm. Mary Hutchings (Plymp.)	0	13	0	..	..
8000	Wh. Norris (tin, cop., St. Cleer)	3	14	7	..	..
10234	Wheal Par (tin), St. Blazey	..	6	16	..	..
9000	Wh. Pollard (cop.), St. Neot	3	3	6	..	..
10234	Wheal Polmar (copper)	..	13	9	..	..
9024	Wh. Prosper (cop., tin), Breage	13	18	10	..	..
9000	Wh. Prudence St. Ag. [L. £1]	0	17	6	..	..
240	Wh. Reeth (tin), Uny Lelant	96	10	0	..	..
9000	Wheal Rose (copper), Scerrior	..	..	..	..	..
10006	Wheal Sarah (tin), Lanivet	0	9	6	..	..
4096	Wheal Sidney (tin), Plympton	8	3	1	..	..
9048	Wh. Sithney & Carnuel Uny	..	12	0	..	..
8000	Wheal Sparren (copper)	..	0	16	..	..
9000	Wh. Traenack (cop.), Sithney	2	16	0	..	..
8000	Wheal Union (cop.), Redruth	14	10	0	..	..
9000	Wh. Unity (cop., tin), Gwennar	14	15	0	..	..
4096	Wh. Uny (tin, cop.), Redruth	9	7	0	..	..
4096	Wheal Viny (copper)	..	0	9	..	..
10234	Wh. Vyvyan (cop.), Constantine	9	15	0	..	..
924	Worvas Downs (tin), Lelant	7	7	0	..	..
9097	Yarner (copper), Devon	..	13	0	..	..

9698 Wh. Ludcott and Wrey (lead) 3 14 8 .. ..  
 9698 Wheal Margery (tin, copper) 20 6 10 .. ..  
 10006 Wm. Mary Hutchings (Plymp.) 0 13 0 .. ..  
 8000 Wh. Norris (tin, cop., St. Cleer) 3 14 7 .. ..  
 10234 Wheal Par (tin), St. Blazey .. 6 16 .. ..  
 9000 Wh. Pollard (cop.), St. Neot 3 3 6 .. ..  
 10234 Wheal Polmar (copper) .. 13 9 .. ..  
 9024 Wh. Prosper (cop., tin), Breage 13 18 10 .. ..  
 9000 Wh. Prudence St. Ag. [L. £1] 0 17 6 .. ..  
 240 Wh. Reeth (tin), Uny Lelant 96 10 0 .. ..  
 9000 Wheal Rose (copper), Scerrior .. .. ..  
 10006 Wheal Sarah (tin), Lanivet 0 9 6 .. ..  
 4096 Wheal Sidney (tin), Plympton 8 3 1 .. ..  
 9048 Wh. Sithney & Carnuel Uny .. 12 0 .. ..  
 8000 Wheal Sparren (copper) .. 0 16 .. ..  
 9000 Wh. Traenack (cop.), Sithney 2 16 0 .. ..  
 8000 Wheal Union (cop.), Redruth 14 10 0 .. ..  
 9000 Wh. Unity (cop., tin), Gwennar 14 15 0 .. ..  
 4096 Wh. Uny (tin, cop.), Redruth 9 7 0 .. ..  
 4096 Wheal Viny (copper) .. 0 9 0 .. ..  
 10234 Wh. Vyvyan (cop.), Constantine 9 15 0 .. ..  
 924 Worvas Downs (tin), Lelant 7 7 0 .. ..  
 9097 Yarner (copper), Devon .. 13 0 .. ..

9698 Wh. Ludcott and Wrey (lead) 3 14 8 .. ..  
 9698 Wheal Margery (tin, copper) 20 6 10 .. ..  
 10006 Wm. Mary Hutchings (Plymp.) 0 13 0 .. ..  
 8000 Wh. Norris (tin, cop., St. Cleer) 3 14 7 .. ..  
 10234 Wheal Par (tin), St. Blazey .. 6 16 .. ..  
 9000 Wh. Pollard (cop.), St. Neot 3 3 6 .. ..  
 10234 Wheal Polmar (copper) .. 13 9 .. ..  
 9024 Wh. Prosper (cop., tin), Breage 13 18 10 .. ..  
 9000 Wh. Prudence St. Ag. [L. £1] 0 17 6 .. ..  
 240 Wh. Reeth (tin), Uny Lelant 96 10 0 .. ..  
 9000 Wheal Rose (copper), Scerrior .. .. ..  
 10006 Wheal Sarah (tin), Lanivet 0 9 6 .. ..  
 4096 Wheal Sidney (tin), Plympton 8 3 1 .. ..  
 9048 Wh. Sithney & Carnuel Uny .. 12 0 .. ..  
 8000 Wheal Sparren (copper) .. 0 16 .. ..  
 9000 Wh. Traenack (cop.), Sithney 2 16 0 .. ..  
 8000 Wheal Union (cop.), Redruth 14 10 0 .. ..  
 9000 Wh. Unity (cop., tin), Gwennar 14 15 0 .. ..  
 4096 Wh. Uny (tin, cop.), Redruth 9 7 0 .. ..  
 4096 Wheal Viny (copper) .. 0 9 0 .. ..  
 10234 Wh. Vyvyan (cop.), Constantine 9 15 0 .. ..  
 924 Worvas Downs (tin), Lelant 7 7 0 .. ..  
 9097 Yarner (copper), Devon .. 13 0 .. ..

9698 Wh. Ludcott and Wrey (lead) 3 14 8 .. ..  
 9698 Wheal Margery (tin, copper) 20 6 10 .. ..  
 10006 Wm. Mary Hutchings (Plymp.) 0 13 0 .. ..  
 8000 Wh. Norris (tin, cop., St. Cleer) 3 14 7 .. ..  
 10234 Wheal Par (tin), St. Blazey .. 6 16 .. ..  
 9000 Wh. Pollard (cop.), St. Neot 3 3 6 .. ..  
 10234 Wheal Polmar (copper) .. 13 9 .. ..  
 9024 Wh. Prosper (cop., tin), Breage 13 18 10 .. ..  
 9000 Wh. Prudence St. Ag. [L. £1] 0 17 6 .. ..  
 240 Wh. Reeth (tin), Uny Lelant 96 10 0 .. ..  
 9000 Wheal Rose (copper), Scerrior .. .. ..  
 10006 Wheal Sarah (tin), Lanivet 0 9 6 .. ..  
 4096 Wheal Sidney (tin), Plympton 8 3 1 .. ..  
 9048 Wh. Sithney & Carnuel Uny .. 12 0 .. ..  
 8000 Wheal Sparren (copper) .. 0 16 .. ..  
 9000 Wh. Traenack (cop.), Sithney 2 16 0 .. ..  
 8000 Wheal Union (cop.), Redruth 14 10 0 .. ..  
 9000 Wh. Unity (cop., tin), Gwennar 14 15 0 .. ..  
 4096 Wh. Uny (tin, cop.), Redruth 9 7 0 .. ..  
 4096 Wheal Viny (copper) .. 0 9 0 .. ..  
 10234 Wh. Vyvyan (cop.), Constantine 9 15 0 .. ..  
 924 Worvas Downs (tin), Lelant 7 7 0 .. ..  
 9097 Yarner (copper), Devon .. 13 0 .. ..

9698 Wh. Ludcott and Wrey (lead) 3 14 8 .. ..  
 9698 Wheal Margery (tin, copper) 20 6 10 .. ..  
 10006 Wm. Mary Hutchings (Plymp.) 0 13 0 .. ..  
 8000 Wh. Norris (tin, cop., St. Cleer) 3 14 7 .. ..  
 10234 Wheal Par (tin), St. Blazey .. 6 16 .. ..  
 9000 Wh. Pollard (cop.), St. Neot 3 3 6 .. ..  
 10234 Wheal Polmar (copper) .. 13 9 .. ..  
 9024 Wh. Prosper (cop., tin), Breage 13 18 10 .. ..  
 9000 Wh. Prudence St. Ag. [L. £1] 0 17 6 .. ..  
 240 Wh. Reeth (tin), Uny Lelant 96 10 0 .. ..  
 9000 Wheal Rose (copper), Scerrior .. .. ..  
 10006 Wheal Sarah (tin), Lanivet 0 9 6 .. ..  
 4096 Wheal Sidney (tin), Plympton 8 3 1 .. ..  
 9048 Wh. Sithney & Carnuel Uny .. 12 0 .. ..  
 8000 Wheal Sparren (copper) .. 0 16 .. ..  
 9000 Wh. Traenack (cop.), Sithney 2 16 0 .. ..  
 8000

0000 Discount Corporation [L. £100]	17 10 0.	20	..17 14 1/2%
25000 Gen. Cred. & Fin. Leas. [L. £200]	4 0 0.		..6 1/4 %
0000 Inter. Financial Soc. [L. £200]	5 0 0.		..9 3/4 %
0000 National Discount Co. [L. £250]	5 0 0.	14 1/2	..14 1/2 %

Exchange. Those mines with [L.] appended have been incorporated in the company.

All who have the power, to aid us, by forwarding any alterations in the holders, as well as those officially connected with the mine, we appreciate. Description, forwarded to our office, will meet ready attention.

(the proprietors), at their office, No. 26, FLEET STREET, E.C. where we are addressed. - September 3, 1864.

\* \* Those mines with [S.E.] appended have been admitted on the Stock Exchange. Those mines with [L.] appended have been incorporated in the United Kingdom, and are limited liability companies.

\* \* Our object being to make the Share List correct, we earnestly call upon all who have the power, to aid us, by forwarding any alterations or corrections which may, from time to time, come under their notice. To shareholders, as well as those officials connected with the mines, we appeal for information. Reports from mines—in fact, mining intelligence of every description, forwarded to our office, will meet ready attention.

LONDON: Printed by RICHARD MIDDLETON, and published by HENRY ENGLISH (the proprietors), at their office, No. 36, FLEET STREET, E.C.4, where all communications are requested to be addressed.—September 3, 1864.